Final Report

Independent Evaluation of the California Tobacco Control Prevention & Education Program: Wave 1 Data, 1996-1997

This Report was Prepared by
The Independent Evaluation Consortium of

The Gallup Organization

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for

State of California
Department of Health Services
Tobacco Control Section

Suggested citation:

Independent Evaluation Consortium. *Final Report of the Independent Evaluation of the California Tobacco Control Prevention and Education Program: Wave I Data, 1996-1997.* Rockville, Maryland: The Gallup Organization, 1998.

Acknowledgments

This report was prepared by the following individuals for the Tobacco Control Section of the California Department of Health Services under Contract No. 95-22998.

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We would also like to thank the following individuals for their valuable contributions to the Independent Evaluation.

David Ahn, Ph.D. (Stanford), for management, quality control, and analyses of the data.
Ellen Feighery, M.S. R.N. (Stanford), for her thoughtful review of implications.
June Flora, Ph.D. (Stanford), for conceptual input and creative application of theory to practice.

Sonia Halvorson, B.A. (Stanford), for data management, data analysis, graphics, and assistance with report preparation.
Mike Hennesy (USC), for assistance with data management and analyses.
Todd Rogers, Ph.D. (Stanford), Scientific Director and Community Component Lead from January 1996 through June 1997, for his role in design of the evaluation, implementation of field work, and initial data analyses.
Angela Turk (USC), for administrative support and assistance with report preparation.
Michelle Wilkinson (Gallup), for report preparation, development, and layout.

The many tobacco project directors, local lead agency and grantee staff, school principals, teachers, school district TUPE coordinators, school-based youth, community leaders, and adult community residents who completed the Independent Evaluation survey instruments.

Special thanks to the staff of the
Tobacco Control Section of the California Department of Health Services,
staff of the Healthy Kids Office of the California Department of Education,
and members of the TCS Evaluation Task Force
for their review and insights.

TABLE OF CONTENTS

Chapter

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

I. INTRODUCTION

California's Tobacco Control Program

California's Tobacco Control Program was developed in response to the voters' actions in passing Proposition 99 - the Tobacco Tax and Health Promotion Act of 1988. This referendum increased the state cigarette tax from 10 cents to 35 cents per pack, added a proportional tax increase on other tobacco products, and earmarked the new revenues for tobacco control, medical care, and research activities. It launched one of the largest public health interventions of its kind ever initiated, nationally or internationally.

Proposition 99 created the Tobacco Products Surtax Fund, composed of six accounts to which proportionate amounts of tobacco tax revenues were to be allocated annually. These accounts included Health Education (20%), Hospital Services (35%), Physician Services (10%), Research (5%), Public Resources (5%), and Unallocated (25%). The purpose of the Health Education account was to fund community and school health education programs to prevent and reduce tobacco use, primarily among children.

Proposition 99 became law as Assembly Bill (AB) 75. The legislation appropriated funds from the Health Education account of the Tobacco Products Surtax Fund to establish the comprehensive Tobacco Control Program (TCP). The California Department of Health Services, Tobacco Control Section (CDHS/TCS) and the California Department of Education (CDE) were authorized to administer the TCP. The legislation set as a goal a 75% reduction in the prevalence of adult smoking by the year 1999, i.e., a decrease to 6.5% of California adults.

Fluctuations in Tobacco Control Program Funding

From the outset, the California legislature has not implemented the voters' 20% funding mandate for tobacco control programs. From 1989 to 1994, the TCP received an average of only 15% of the total tobacco surtax funds; i.e., only three-quarters of what was mandated by the California voters. Authorizing legislation that was passed subsequent to AB 75, including AB 99 (1991) and AB 816 (1994), allowed for redirection of Health Education account funds from tobacco control programs to direct medical services. These redirection efforts resulted in a decline of total funding for tobacco control programs from $131.3 million in fiscal year 1989-90 to $53.4 million in fiscal year 1995-1996. The redirection was challenged in several civil lawsuits, and in 1994 the Sacramento Superior Court ruled that the use of Health Education account funds for medical services violated the terms of Proposition 99.

It should be emphasized that the Independent Evaluation described in this report assessed Tobacco Control Program activities that occurred during fiscal years 1994-95 and 1995-96, which represent the lowest point in funding levels for the Tobacco Control Program since its inception.

Tobacco Control Program (TCP) Model

The TCP utilizes a comprehensive, integrated approach to the prevention and reduction of tobacco use statewide. Multiple interventions are implemented via multiple channels, to target various aspects contributing to tobacco use, such as individual, social, and environmental factors. Tobacco control activities are conducted through community programs, school programs, and the statewide media and public relations campaign.

The California TCP model was based in part on lessons learned from several large community trials of heart disease prevention interventions, such as the Stanford Five-City Project, [30] and Minnesota Heart Health Program,[31] and the Pawtucket Heart Health program.[32] These interventions were comprised of a wide range of integrated strategies that were implemented via multiple channels and designed to reduce multiple risk factors for heart disease, including smoking. Program components included mass media campaigns, community organization, direct education for smoking prevention and cessation, health care provider education, and worksite health promotion. The program strategies were based on social learning theory,[33] persuasive communications theory,[34] and models for involvement of community leaders and institutions.[35]

Over time, increasing emphasis has been placed on a broader, environmental focus for community programs and the statewide media campaign. Since late 1993, tobacco control efforts funded by the CDHS/TCS have concentrated on three priority areas:

1. Reducing exposure to environmental tobacco smoke (ETS);
2. Reducing youth access to tobacco through commercial and social sources; and
3. Countering pro-tobacco influences in the community.

The primary goal of this approach is to promote social norms that tobacco use and exposure to ETS are not acceptable.

The approach of school-based tobacco use prevention programs, under the direction of CDE, has evolved from one that primarily emphasized the reduction of tobacco-related risk factors, to one based on the guidelines for school prevention and cessation programs that were issued by the Centers for Disease Control and Prevention in 1994. These guidelines focus on the importance of no-tobacco use policies, instruction about social influences to use tobacco, intensive programming during the middle school years, program-specific teacher training, parent involvement, and support for cessation efforts.

Rationale for This Independent Evaluation

Prior evaluations of the TCP focused on statewide surveillance of tobacco-related attitudes and behaviors among adults and youth (i.e., outcomes)[7,10] and tracking of program implementation.[6] Five years after the inception of the program, it became clear to program practitioners and policymakers alike that there was a need for an evaluation that would link program implementation and outcome data, and address questions about program effectiveness. In 1994, the authorizing legislation for the TCP (AB 816) mandated that such an evaluation be conducted by an independent group.

This Independent Evaluation represents the first attempt to link exposure to the California Tobacco Control Program to intermediary and ultimate outcomes. It is the first evaluation that has the capability to address the extent to which changes in TCP exposure affect changes in program outcomes. It is critical that a careful analysis of program effectiveness be conducted as the program begins its tenth year of operation. Prior evaluation efforts, and the ongoing statewide surveillance study, are not sufficient to address *how* the modalities of the TCP (i.e., community programs, the media campaign, and school programs) are working, both independently and as a comprehensive, integrated effort. In addition to determining the effectiveness of TCP activities in relation to the major goals envisioned in Proposition 99, findings from this Independent Evaluation will be useful to (a) aid policy makers in future allocation decisions, (b) help state and local program staff to make informed decisions about program improvements, and (c) serve the information needs of the broader public health and scientific communities and residents of California.

This multi-component Independent Evaluation is unique in its approach, design, and methods. A program as complex and multi-faceted as the California TCP requires a complex evaluation strategy. The primary features of this evaluation include the following:

- The evaluation design is longitudinal. We will collect data from the same types of sources in the 18 focal counties, at three points in time.
- The evaluation includes collection of data from multiple primary sources (e.g., adult residents, in-school youth, community opinion leaders, law enforcement staff, project directors, teachers, school administrators, etc.) and secondary sources (e.g., program progress reports, helpline call data, policy data, etc.).
- Both individual level (e.g., adult residents and youth) and community level (e.g., policy changes) data are collected, and can be linked at the county level.
- Data are collected from "senders" of programs (i.e., program implementors such as project directors and teachers) as well "receivers," or those who were exposed to programs (i.e., adults and youth).
- Survey instruments are tailored to assess specific program strategies and activities (e.g., specific media spots, community events, etc.), and include items that address program modifications as they occur (e.g., the ban of smoking in bars).

In sum, this Independent Evaluation has the capability to make important contributions to our understanding of the implementation and effectiveness of the California Tobacco Control Program.

Purpose, Design, and Methods of this Independent Evaluation

This Independent Evaluation was designed to assess the effectiveness of tobacco control conducted through community programs, schools, and the statewide media and public relations campaign, as well as the overall impact of the TCP on intermediary outcomes. The purpose of the evaluation was to gather information that would help CDHS and CDE to allocate resources so as to accomplish the maximum prevention and reduction of tobacco use statewide.

The design of the Independent Evaluation includes three sequential, cross-sectional waves of data collection. The first wave was conducted from October 1996 to March 1997 and focused on a two-year period of tobacco control activities, calendar years 1995 and 1996. The second and third waves of data collection will be conducted in early 1998 and late 1999, respectively. This report summarizes data from the first wave of data collection, which serves as a baseline. Data from the second and third waves will be compared to this baseline to determine changes in levels of TCP activities and outcomes over time.

A sampling scheme for the evaluation identified 18 "focal" counties within California that were representative of other counties with similar composition (based on population density and percent of area in the county that is rural). Data from this sample are generalizable to the entire state.

The evaluation focused on assessment of both program implementation and exposure (i.e., "dosage"), and program outcomes. Measures of program implementation were obtained from organizations that sponsored tobacco control activities (e.g., community agencies and schools), and measures of program exposure were obtained from random samples of youth and adults in the focal counties. In most of the analyses of relationships between program dosage and outcomes, measures of program exposure were used. Outcome measures were focused on *intermediary* outcomes of the TCP, which included both individual (i.e., attitudes, beliefs, and behaviors) and community (i.e., policy enactment and enforcement) level indicators. In addition to program implementors and the general public, sources of data collection included law enforcement staff and community opinion leaders. Multiple data collection methods were used, including telephone interviews, school-based surveys, other written surveys, and coding of archival records.

In addition to primary data collection, the evaluation included secondary data analyses of several state and national datasets comprised of tobacco-related outcome variables. These analyses were conducted to examine trends in tobacco control outcomes within California, and to compare outcomes in California to those nationwide.

Capabilities and Limitations of the Independent Evaluation

This Independent Evaluation employed a quasi-experimental observational design. [37] We utilized multiple methods, multiple data sources, and collection of primary and secondary data to assess TCP activities and TCP outcomes. Wave 1 data collection enabled us to do the following:

- Describe the amount, type, reach, and availability of specific TCP activities implemented via three modalities (i.e., community programs, statewide media campaign, and school programs).
- Describe levels of exposure to specific TCP programs and activities (via communities, media, and schools) on the part of sampled community residents, in-school youth, and community opinion leaders.
- Describe indicators of TCP outcomes (i.e., tobacco-related attitudes, social norms, behaviors, policies, etc.).
- Determine the effectiveness of TCP programs and activities by analyzing the strength of relationships between delivery of, or exposure to TCP activities and outcomes.
- Describe the tobacco industry's advertising and promotional activities in California, and, where similar data were available, compare these activities to those seen in other states.
- Compare indicators of tobacco-related social norms (i.e., beliefs, behaviors, etc.) in California with those elsewhere in the nation.

Our Wave 1 analyses of program effectiveness were limited by factors that affect all cross-sectional evaluation designs with no comparison group. With measures of program exposure and outcomes *from one point in time only*, a significant positive relationship between TCP exposure and outcomes can suggest that the program may have influenced the outcome indicators, but it does *not* allow one to conclude that the program *caused* the outcomes. With the cross-sectional data obtained in Wave 1, we were able to look at *associations* between program exposure and outcomes, but we could not infer that observed effects or outcomes were *caused* by program exposure. For example, we found significant positive associations between school program exposure and several outcome indicators (e.g., tobacco-related attitudes), which meant that schools with high program exposure also tended to have better scores on the outcome indicators. However, our cross-sectional design did not allow us to rule out many of the plausible alternative explanations for this relationship (e.g., schools with high exposure were different from schools with low exposure in terms of characteristics that we did not measure, schools with high exposure experienced some event that schools with low exposure did not, these outcomes could have also been observed in schools that did not receive the program, etc.), and therefore were unable to state that the TCP caused the outcomes.

However, the addition of Waves 2 and 3 during the next three years (1998-2000) considerably increases the capability of the Independent Evaluation to attribute outcomes to programs. The Wave 1 data will become a baseline from which *changes* in TCP activities and resulting outcomes may be measured longitudinally. Specifically, the longitudinal evaluation design will enable us to:

- Describe changes that occur in program implementation and outcome indicators over a four-year period.
- Plot and analyze time trends on key TCP outcome indicators.
- Determine the effectiveness of the TCP by analyzing relationships between changes in TCP exposure and changes in TCP outcomes.
- Compare time trends on tobacco-related social norm indicators in California to those in other states.
- Describe changes in the tobacco industry's advertising and promotional activities in California, and, where similar data were available, compare these changes to those seen in other states.

With additional waves of data from the same counties utilizing the same methods, we will be able to employ statistical techniques that are appropriate for testing whether the program may have caused an impact (e.g., repeated-measures multiple regression, path analysis, cross-lagged panel correlations, etc.).

Finally, the question has been raised about whether this evaluation will be able to test the effectiveness of individual activities, strategies, or programs of the comprehensive TCP effort (e.g., specific media spots, curricula, or interventions). While the evaluation was not designed to allow us to state definitive conclusions about the effects of individual strategies on tobacco-related outcomes, it does provide data on some elements of the effectiveness of individual strategies. For example, the evaluation data provide information about the extent to which individual strategies or activities were implemented in communities, schools, and the media, and the extent to which sampled youth, adults, and community opinion leaders were exposed to them.

There is particular interest in whether the evaluation can determine the effectiveness of various media strategies. An experimental trial is the preferred methodology for obtaining a definitive answer about effectiveness of any program strategy. For example, one might conduct a trial to compare the tobacco-related attitudes and behaviors of individuals that were randomly assigned to see specific media spots to those who did not see the spots. With the Independent Evaluation quasi-experimental observational data, it is difficult to rule out plausible alternative explanations for any observed relationship between exposure to media spots and outcomes. First, most sampled adults and youth were exposed to more than one media spot, so it is difficult to isolate a group that was only exposed to one spot that utilized a specific strategy (e.g., hard-hitting against the tobacco industry). Second, individuals exposed to only one spot are likely to differ from a group that saw multiple media spots, on variables that are correlated with the outcomes (e.g., demographic characteristics). Thus, the design of the Independent Evaluation will allow us to describe which of the media spots we assessed were most strongly associated with intermediate outcomes (e.g., attitudes toward the tobacco industry, calls to the smoker helpline, etc.). However, recognizing our study limitations, we must present multiple caveats and consider alternative explanations for such associations.

II. KEY FINDINGS

Overall Impact of the Tobacco Control Program

- Tobacco control programs reached Californians through multiple modalities. The vast majority of 10th-grade youth (93%) had been exposed to at least one TCP modality (i.e., community, media, or school programs), and 87% of adults had been exposed to at least one TCS-funded community or media activity.

- There were many consistencies in the association between exposure to TCP modalities (i.e., community programs, the statewide media campaign, and school programs) and intermediary outcomes. Compared to those not exposed, adults and youth exposed to at least one TCP modality tended to have greater awareness of tobacco control issues (e.g., awareness of worksite no-smoking policies), and stronger anti-tobacco attitudes (e.g., negative attitude toward the tobacco industry), beliefs (e.g., belief that tobacco advertising in their community is a serious problem), and behaviors (e.g., had asked someone not to smoke around them in the previous year). Furthermore, exposure to each TCP modality was associated with tobacco-related knowledge, attitudes, and beliefs, even after accounting for respondents' exposure to other TCP modalities. For example, adults who reported higher levels of exposure to mass media programs were more likely to dislike environmental tobacco smoke, favor government regulation of tobacco, and practice personal enforcement than those who reported lower exposure, even after exposure to community programs was taken into account.

- Youth and adults exposed to multiple tobacco control programs showed especially high levels of anti-tobacco attitudes and beliefs. For example, youth exposed to multiple TCP modalities were more likely to perform tobacco-related advocacy actions, such as signing petitions and contacting government officials, than were youth exposed to one or no modalities. Adults who were exposed to both media and community programs tended to support anti-tobacco policies more than did adults who were exposed to media programs only or community programs only. These results suggest that messages conveyed by one TCP modality may have enhanced or reinforced the messages conveyed by other modalities.

- Secondary data analyses indicated that although the prevalence of smoking among youth is increasing both in California and other states, it is increasing more rapidly in other states. Furthermore, disapproval of smoking among youth has decreased both in California and other states, (i.e., youth have become more tolerant of smoking among their peers), but the decrease has occurred more slowly in California. Among adults, the rate of decline in smoking has been steeper in California than in other states.

TCS-Funded Community Programs and Statewide Media Campaign

A. Reducing Exposure to Environmental Tobacco Smoke (ETS)

- Most California adults and 10th-grade youth were aware that secondhand smoke disables and kills (89% and 97%, respectively), and a majority of community opinion leaders and 10th-grade youth believed that environmental tobacco smoke is a serious problem (55% and 60%, respectively).

- The provisions of local ETS policies and Assembly Bill 13 (AB 13) - the California law that prohibits smoking in most indoor public areas and workplaces - have helped to drive home the point that "no smoking" in public places is the norm. In 1996, most adults (87%) reported having no-smoking policies at their worksites; up from 77% in 1993 (California Adult Tobacco Survey [CATS]). Data from the Independent Evaluation survey showed that the majority of adults were aware that there was a complete restriction on smoking in fast food restaurants (79%) and family restaurants (61%). In addition, the majority of adults were supportive of no-smoking policies being extended to other areas such as bars (75%) and outdoor public places (57%).

- In private settings as well, there has been an increase in the percentage of California adults who reported a complete ban on smoking in their homes, from 50% in 1993 (CATS) to 75% in 1996 (Independent Evaluation adult survey). In the 1996 Independent Evaluation survey, the majority of adults (64%) reported that smoking is never allowed in their family cars.

- Exposure to TCP programs was found to be related to personal behavior. Adults who had been exposed to tobacco control community programs and the statewide media campaign related to ETS reduction were more likely to have asked another person not to smoke around them sometime in the previous year than were adults not exposed.

- While overall, only 28% of designated AB 13 enforcement agencies thought that exposure to ETS in public places was a serious problem compared to other problems in their communities, 50% of agencies in rural counties rated ETS as serious. In addition, rural enforcement agency staff rated enforcing ETS policies as more important than did staff in other types of counties, suggesting that ETS issues may be more salient in rural counties. Enforcement agencies in rural counties reported responding to inquiries and complaints and issuing warnings related to AB 13 enforcement more often than did enforcement agencies in other types of counties.

- ETS enforcement was higher in counties with more local ETS-focused community programs. Since ETS enforcement is stimulated by public complaints, this finding suggests that community programs stimulated more public complaints.

B. Reducing Youth Access to Tobacco

- Despite impressive reductions in the rate of illegal tobacco sales to minors observed in statewide youth tobacco purchase surveys, Independent Evaluation survey data show that most 10th-grade youth (90%) reported it would be easy for them to obtain tobacco. Youth appear to be obtaining tobacco from both retail and social sources. Among 10th- grade youth who had ever smoked, 14% reported obtaining their most recent cigarettes from a retail outlet and 71% reported obtaining them from social sources such as friends or relatives. Among 8th-graders who had ever smoked, 6% obtained their most recent cigarettes from a retail outlet, and 64% obtained them from social sources.

- About two-thirds of 10th-grade youth who attempted to purchase tobacco from a retail source reported that they succeeded. These youth, however, were very selective about where they attempted to buy tobacco. They reported that they bought their most recent cigarettes at liquor stores (39%) and small markets (19%), a finding that is consistent with past California youth purchase surveys. A fairly small number of 8th-grade (10%) and 10th-grade youth (4%) still reported obtaining tobacco from vending machines. This is disturbing because vending machines are supposed to be restricted to adult-only establishments.

- Only 25% of enforcement agency staff believed that youth access to tobacco is a serious problem compared to other problems in their community. The evaluation identified three important avenues to increasing enforcement: (1) more collaboration with youth access enforcement agencies and increased efforts to overcome the barriers that enforcement officials face, such as limited staff, inadequate budget, and low perceived priority by the community; (2) using mass media to educate community members about the importance of restricting youth access to tobacco and to build support for rigorous enforcement; and (3) increasing calls to the Stop Access to Kids Enforcement (STAKE) Act number via signage and community programs.

- Policies to license stores that sell tobacco garnered support from a large majority of adults (77%) and community opinion leaders (70%). Moreover, more than three-quarters of enforcement agency personnel surveyed believed that licensure removal for stores caught illegally selling tobacco to minors would be very effective.

C. Countering Pro-Tobacco Influences

- In California, countering pro-tobacco influences covers a wide range of strategies focusing on "deglamorizing" the tobacco industry through public education, efforts to reduce or restrict tobacco marketing, revelations about tobacco marketing practices, and efforts to decrease tobacco industry sponsorship of sporting and other community events. The first wave of the Independent Evaluation primarily focused on assessing efforts to reduce tobacco advertisements and promotions.

- An overwhelming majority of adults and youth reported seeing pro-tobacco advertisements, promotions, and signage in a variety of venues such as on billboards, at community events, and especially in stores, as well as pro-tobacco images on television. Youth exposed to community programs and statewide media that sought to counter these pro-tobacco influences were more likely to believe that tobacco companies try to get kids addicted to tobacco, and that tobacco ads make young people want to start smoking, than youth not exposed to tobacco control messages.

- The public believed there are more restrictions on tobacco advertising and promotions than actually exist. A substantial proportion of adults and 10th-grade youth we surveyed did not know if regulations existed or wrongly thought that they existed for advertising in stores (46% and 79%, respectively), and on outdoor billboards and buses (54% and 76%, respectively). A substantial proportion of opinion leaders (41%) also did not know if local regulations existed, or wrongly thought that their community had restrictions, when in fact only two jurisdictions across the 18 focal evaluation counties had a local public policy to restrict tobacco advertising.

- During the Independent Evaluation period, no policies to restrict tobacco advertising or sponsorship were passed in the 288 jurisdictions located in the 18 focal evaluation counties. However, some Local Lead Agencies (LLAs) reported efforts to initiate ordinances to restrict or ban advertising (14%), restrict or ban promotional items (14%), and restrict sponsorship of events (5%). In addition, 80% of LLAs and community projects worked to pass or strengthen policies to reduce youth exposure to advertising and promotions, 50% worked to pass anti-tobacco advertising policies in local venues such as stadiums, and 52% worked to create event sponsorship alternatives to tobacco industry money.

- A majority of adults (56%-61%) and opinion leaders (57%-63%) supported policies to ban tobacco advertising in stores, advertising outdoors, and tobacco sponsorship of community events; however, more support needs to be built to assure passage of such policies.

- Recall for some historic media spots that focused on countering pro-tobacco influences was high. For example, even though the historic spot "Boardroom" was not aired during the evaluation period (1995-1996), more than one-third of adults and more than one-half of 10th-graders remembered seeing the "Boardroom" spot, which portrayed the marketing practices of the tobacco industry.

Tobacco Industry Marketing in California

- The tobacco industry spent about $1.04 per person on billboards in California during 1996. This figure represents more than it spent in nine out of 10 comparable states for which expenditures were also monitored. In a field survey of billboards in 13 of the focal evaluation counties, most of the pro-tobacco billboards (89%) were leased from only two companies; one company alone controls 61%.

- Using street maps, we found that nearly one-half (49%) of the pro-tobacco billboards surveyed appeared to be located within 1000 feet of schools and public playgrounds. Statewide legislation prohibiting tobacco-billboard placement near schools went into effect in January 1998.

- Tobacco advertising in newspapers was low (.08 ads per issue). However, we observed relatively high concentrations in weekly newspapers with an entertainment focus (1.67 ads per issue). A fairly new trend in these types of publications is to list a variety of bars, clubs, and lounges with upcoming tobacco-brand sponsored nights or performances. The ads appear to be aimed at young adults in ways that make tobacco seem like a normal and integral part of the evening entertainment lineup.

- Among more news-oriented newspapers, tobacco advertising was higher in African American publications (.15 ads per issue) and Hispanic/Latino publications (.07 ads per issues), than in White or Asian American papers (each with .02 ads per issue).

- About one in eight large public events in California had some sort of tobacco funding to support the event or to permit advertising at the event. This type of promotional effort was found in about two-thirds (67%) of rodeos and one-third (34%) of sporting, car, and boating events. Often large sports arenas featured year-round tobacco billboards or signs that expose a wide variety of audiences to tobacco advertising and make an association between tobacco and the types of events held there. Generally, tobacco-sponsored events drew three times as many patrons as events that have no tobacco advertisers.

- Promotions through brand merchandising appear to have a greater appeal for youth than for adults. About one-third of 8th- and 10th-graders reported they own at least one type of tobacco brand merchandise or promotional item. Over 10% of youth reported getting these types of items directly from promoters (i.e., through the mail, at a fair or event, or as part of a tobacco package), despite warnings that these items are available only for adults.

Evaluation of the School Tobacco Use Prevention Education Program

- Schools implemented multiple Tobacco Use Prevention Education (TUPE) program components, including tobacco lessons, cessation programs, peer tobacco education, clubs, and schoolwide events (e.g., the Great American Smokeout). Even though CDE requires school districts to provide tobacco instruction to all students in grades four through eight, only 54% of the 5th-grade teachers and 52% of the 8th-grade teachers surveyed reported they had implemented at least one tobacco lesson during the year prior to the survey. Student surveys corroborated these findings; 55% of 5th-grade and 8th-grade youth recalled one or more lessons about tobacco use during the year prior to the survey.

- Of the 5th-grade, 8th-grade, and 10th-grade teachers who reported teaching tobacco lessons in school year 1995-96, a greater proportion addressed the physiologic consequences of tobacco use (98%) in their lessons than psychosocial factors related to tobacco use, such as social influences to smoke (72%), tobacco refusal skills (61%), and peer tobacco use norms (56%).

- Nearly all (95%) of California school districts have adopted a no-tobacco use policy that prohibits the use of tobacco by students, staff, parents, and visitors in all district-owned or leased buildings, on district grounds, and in district vehicles. The majority of 5th-grade (78%), 8th-grade (90%), and 10th-grade (94%) students reported that they were aware of their school's tobacco-free policy. However, a majority of 10th-grade students (69%) and one-third of 10th-grade teachers believed that policy compliance among student smokers was low.

- The two most common barriers to implementing tobacco prevention education reported by teachers were lack of time (70% of 5th-grade, and 50% of 8th-grade teachers) and lack of adequate instructional materials (51% of 5th grade, and 34% of 8th-grade teachers). In addition to these barriers, school district TUPE Coordinators cited the lack of teacher and administrative support for tobacco education as a common barrier.

- At the elementary school level, 5th-grade exposure to tobacco programs was associated with greater tobacco-related knowledge, more negative beliefs about the consequences of tobacco use, and more anti-tobacco attitudes. At the middle/junior high school level, 8th-grade exposure to tobacco programs was associated with a lower prevalence of 30-day tobacco use, greater tobacco-related knowledge, more negative beliefs about the consequences of tobacco use, and more anti-tobacco attitudes.

- High schools that received TUPE competitive grant funds ("grantees") were compared to high schools that did not receive grants ("non-grantees"), with regard to levels of program implementation and program outcomes. A significantly greater proportion of grantee high schools (85%) than non-grantee high schools (60%) reported implementing cessation programs. When grantee and non-grantee high schools were compared on each of the program outcome indicators among 10th-grade students (e.g., tobacco-related knowledge, beliefs, and attitudes, tobacco uptake and quitting process), the results indicated that none of the differences between the two types of schools was significant.

III. RECOMMENDATIONS

The results of this evaluation suggest that California's comprehensive, integrated approach to tobacco control has been effective in reaching Californians. Youth and adults exposed to multiple tobacco control program modalities showed especially high levels of awareness of tobacco issues, and stronger anti-tobacco attitudes, beliefs, and behaviors. Programs and activities should continue to be delivered through multiple modalities (i.e., communities, media, and schools). To achieve changes in intermediary outcomes (e.g., social norm changes) and ultimate outcomes (e.g., decrease in smoking prevalence), the TCP needs to continue to be highly coordinated. Continued coordination among the tobacco control modalities will ensure that each modality reinforces the messages conveyed by the others, and will maximize the possibility for synergy.

With regard to reducing environmental tobacco smoke (ETS):

- TCS programs need to keep support and concern for ETS reduction high, but also look for other ways to decrease exposure to ETS, particularly in private environments, such as the home and car.

- Educational efforts should be used to enhance public awareness about the existence of no-smoking policies. Local Lead Agencies could work more closely with enforcement agency staff and promote public awareness of local activities to encourage complete compliance with current ETS laws. These efforts could focus on specific areas that appear to have lower levels of compliance, such as small workplaces with five or fewer employees and rural areas.

- The bar ban, a provision of AB 13 that went into effect in 1998, presents a challenge and opportunity for Local Lead Agencies to work with local bar owners to prepare them for the law. Evidence from early 1998 suggests that opposition to the statewide ban of smoking in bars from some smokers, bar owners, and state legislators will need to be anticipated and countered. TCS needs to prepare communities for this challenge. Public education is needed about the implications of the bar ban, including its importance for business and health.

- TCS-funded programs should consider initiating policies in areas not currently being pursued at the state level, especially those that appear to garner strong support, such as restriction of smoking in outdoor public areas.

With regard to reducing youth access to tobacco:

- If youth access is to be reduced effectively, a comprehensive effort is needed that includes both enforcement of existing laws and development of interventions to reduce social sources of tobacco. There is a clear indication from current data and other youth surveys that liquor stores and small markets are the biggest sources of commercially acquired cigarettes. Educational and enforcement efforts should target these types of stores more vigorously and develop intervention strategies specifically for these outlets.

- A second focus for the youth access area should be on social sources, because a majority of youth who use cigarettes report that they get their cigarettes from friends and family. The California Tobacco Control Program is already tackling these two important areas with its STAKE Act program and new social sources activities. Comprehensive efforts should continue.

With regard to countering pro-tobacco influences:

- As part of the overall countering pro-tobacco influences effort to increase the public's perception that pro-tobacco influences are pervasive and effective, there is a need to inform Californians that there are few restrictions on tobacco advertising and promotions at the local level. Local activities and statewide media can build public support for restrictions on tobacco marketing by publicizing the fact that very few policies exist.

- Action to pass policies related to tobacco advertising and promotion, and efforts to find alternatives to tobacco sponsorship of local events, should continue at the local level and potentially at the state level as well.

- Through school programs, community programs, local media, and the statewide media, the California Tobacco Control Program should continue to educate the public, including youth, about the negative influence of tobacco advertising and promotions.

With regard to Tobacco Industry Marketing in California:

- Ethnic networks funded by TCS should take a leading role in encouraging publishers to look for alternative revenue sources, other than the tobacco industry, for supporting ethnically-focused newspapers.

- Local tobacco control programs should be encouraged to work with arenas and local events organizers to seek alternative forms of funding.

- TCS and CDE should continue their efforts to deglamorize tobacco and to educate youth to become critical consumers of tobacco marketing.

With regard to the school Tobacco Use Prevention Education program:

- Greater emphasis needs to be placed on providing tobacco use prevention instruction to all students in California schools, particularly those in middle/junior high schools.

- Instruction about psychosocial factors related to tobacco use is essential to an effective tobacco prevention curriculum. CDE should disseminate more information about tobacco curricula that address psychosocial factors, are based on rigorous research, and have the best chance of deterring tobacco use.

- Schools should put greater effort into enforcement of their no-tobacco use policies.

- There is a need for more detailed information about the extent and effectiveness of prevention and cessation approaches being implemented in TUPE grantee high schools. CDE should encourage districts to use mandated evaluation resources to assess how prevention approaches are applied to different student target groups within the school, and how effective programs are in reducing tobacco use.

CHAPTER 1

Introduction

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Introduction

Brief History of California's Tobacco Control Program

California's Tobacco Control Program was developed in response to the voters' actions in passing Proposition 99—the Tobacco Tax and Health Promotion Act of 1988. This referendum increased the state cigarette tax from 10 cents to 35 cents per pack, added a proportional tax increase on other tobacco products, and earmarked the new revenues for tobacco control, medical care, and research activities. It launched one of the largest public health interventions of its kind ever initiated, nationally or internationally.[1]

Proposition 99 created the Tobacco Products Surtax Fund, composed of six accounts to which proportionate amounts of tobacco tax revenues were to be allocated annually. These accounts included Health Education (20%), Hospital Services (35%), Physician Services (10%), Research (5%), Public Resources (5%), and Unallocated (25%). Their purpose was the following:

- The Health Education account funded community and school health education programs to prevent and reduce tobacco use, primarily among children.
- The Hospital Service account funded hospital care and treatment of patients not covered by private coverage or federal programs.
- The Physician Services account funded physician care and treatment of these patients.
- The Research account funded tobacco-related disease research.
- The Public Resources account funded programs to protect wildlife and enhance park and recreation resources.
- Money from the Unallocated account could be used to supplement any of the above programs.

Proposition 99 was codified into law as Assembly Bill (AB) 75. The legislation appropriated funds from the Health Education account of the tobacco surtax fund to establish the comprehensive Tobacco Control Program (TCP). The California Department of Health Services, Tobacco Control Section (CDHS/TCS) and the California Department of Education (CDE) were authorized to administer the TCP. The legislation set as a goal a 75% reduction in the prevalence of adult smoking by the year 1999, i.e., a decrease to 6.5% of California adults.

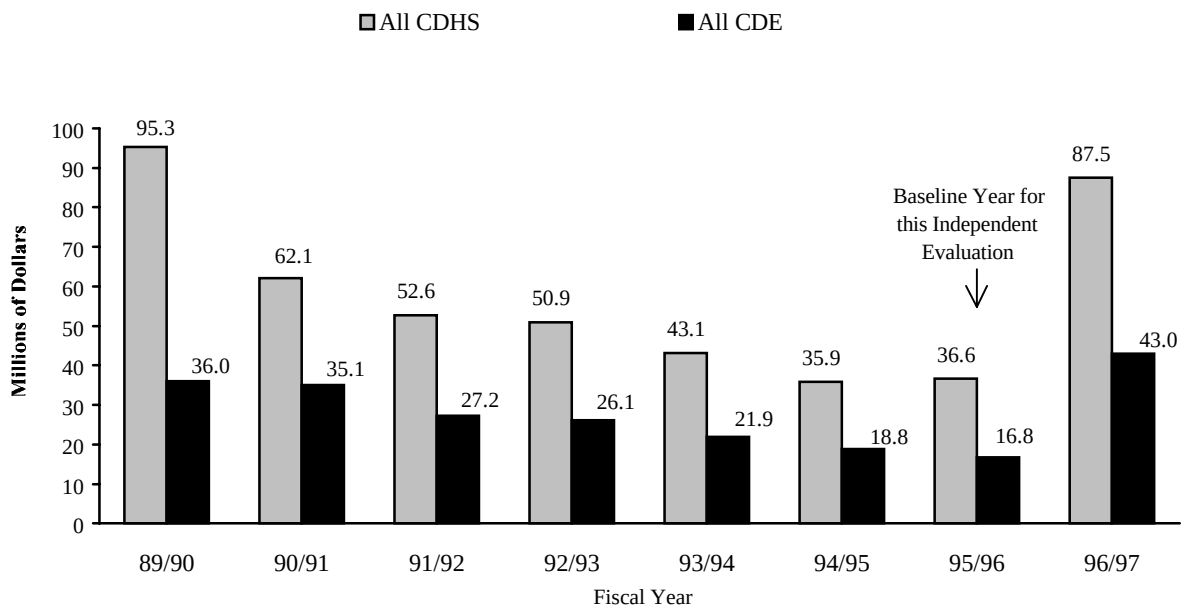
Fluctuations in TCP Funding

From the outset, the California legislature has not implemented the voters' 20% funding mandate for tobacco control programs. From 1989 to 1994, the TCP received an average of only 15% of the total tobacco surtax funds; i.e., only three-quarters of what was mandated by the California voters.[2] Authorizing legislation that was passed subsequent to AB 75, including AB 99 (1991) and AB 816 (1994), allowed for redirection of Health Education account funds from tobacco control programs to direct medical services. Senate Bill 493, passed in 1995-96, allowed funds to be allocated to the various Proposition 99 accounts according to percentages that were different from those specified in the proposition, with a four-fifths vote of the legislature. These redirection efforts were led by the governor and endorsed by the tobacco industry.[3] Civil actions to prevent the reallocations were initiated by tobacco control advocates, including Americans for Nonsmokers Rights, the American Lung Association, the American Cancer Society, a number of California taxpayers, and an anti-tobacco group, Just Say No to Tobacco Dough.[2] In December 1994, the Sacramento Superior Court found in favor of the tobacco control groups, specifying that the use of Health Education account funds for medical services violated the terms of Proposition 99. The decision was appealed, but in December 1996 the court upheld the ruling. However, in a separate case, the court ruled that it was permissible for the legislature (through a four-fifths vote) to change the percentages of funding allocated to various Proposition 99 accounts.[4]

Figure 1 shows the amount of funding allocated to DHS and CDE for tobacco control programs from fiscal years 1989-90 to 1996-97. From FY 1995-96 to 1996-97, total funding for the TCP more than doubled (from $53.4 million to 130.5 million), bringing it close to the original funding allocation ($131.3 million in 1989-90).

It is important to note that the Independent Evaluation described in this report assessed TCP activities that occurred during fiscal years 1994-95 and 1995-96, which represent the lowest point in tobacco control funding levels since the inception of the program.

FIGURE 1
Proposition 99 Health Education Account Appropriations for Tobacco Control Programs, 1989-97



Original Tobacco Control Program Model

The original underpinnings for the California TCP were the National Cancer Institute's *Standards for Comprehensive Smoking Prevention and Control* (1989).[5] This model specified that tobacco control programs should consider three "axes" of variables in planning for tobacco control: target groups, interventions, and channels for delivery. In the application of this model, California's local programs were required to:

- Target multiple populations, including:
  - School-age youth;
  - Ethnic minority groups;
  - Young adults;
  - Low-income individuals;
  - Pregnant women and women of childbearing age;
  - Current smokers; and
  - Community opinion leaders.
- Use multiple interventions that targeted multiple aspects contributing to tobacco use, such as individual, social, and environmental factors.
- Use multiple channels of access to target populations.
- Mobilize schools and communities.
- Use consensus-building approaches in planning services.
- Collaborate and coordinate program activities at various program levels.
- Use evaluation information to plan and improve programs.[2]

The California TCP model was based in part on lessons learned from several large community trials of heart disease prevention interventions, such as the Stanford Five-City Project, [30] and Minnesota Heart Health Program,[31] and the Pawtucket Heart Health program.[32] These interventions were comprised of a wide range of integrated strategies that were implemented via multiple channels and designed to reduce multiple risk factors for heart disease, including smoking. Program components included mass media campaigns, community organization, direct education for smoking prevention and cessation, health care provider education, and worksite health promotion. The program strategies were based on social learning theory,[33] persuasive communications theory,[34] and models for involvement of community leaders and institutions.[35] The lessons on smoking that were suggested by these trials and applied to the development of the California TCP included:

- States may contribute to the reduction of smoking in communities through the implementation of policies such as increased taxes.
- Community problems such as cigarette smoking require community solutions.
- Communities can help to reduce environmental tobacco smoke by creating a social climate in which cigarette smoking is viewed as an unacceptable behavior.
- A considerable amount of time is needed to implement a comprehensive, integrated communitywide effort to reduce smoking.
- The coordination of several different interventions or program components in communities may enhance the effectiveness of all.
- Interventions need to adopt a public health approach that views smoking as a public health problems as well as an individual problem.[36]

The components of the California TCP included the following:

Local Lead Agencies. From fiscal year 1989-90 to 1996-97, 15% of tobacco control funds were allocated to 58 county health departments and three city health departments to serve as Local Lead Agencies (LLAs) for tobacco control. The Local Lead Agencies' task was to coordinate tobacco control activities, and provide technical assistance on program planning and service delivery at the local level. These agencies have implemented a broad range of individual, community, and environmental level interventions.[6] Their original objectives included: (1) increasing dissemination of information on the health consequences of tobacco use and environmental tobacco smoke (ETS) exposure; and (2) advising local policy-makers on options for tobacco control, with a particular emphasis on the protection of nonsmokers from ETS.[7]

Mass Media Campaign. The anti-tobacco mass media campaign consisted of outdoor advertising, print media, and paid advertisements on radio and television. From fiscal year 1989-90 to 1996-97, the campaign received about 12% of TCP expenditures, and it has been one of the most visible components of the TCP. Its original goals were: (1) to de-glamorize tobacco use; (2) to emphasize the negative health effects of smoking during pregnancy; (3) to promote smoking cessation; and (4) to provide information-oriented messages on the dangers of smoking, particularly to recent immigrants.[8]

Competitive Grants Program. A competitive grants program was established to fund tobacco prevention projects that built on existing community services and resources, especially those targeting ethnic minority communities. From fiscal year 1989-90 to 1996-97, 15% of tobacco control funds were spent on competitive grants to community-based agencies. In 1991, the grants program established networks of agencies serving each of the four major ethnic groups in California (African Americans, Latinos, Asian/Pacific Islanders, and American Indians). These ethnic networks were designed to ensure that culturally sensitive programs were available to ethnic populations. In addition, 11 regional community linkage projects were funded under the competitive grants component to overcome barriers that have made it difficult for local governments and community-based organizations to work outside their geographic boundaries on media campaigns and other initiatives.[2]

School Tobacco Control Programs. From fiscal year 1989-90 to 1996-97, 22% of tobacco control funds were allocated to local school districts and county offices of education to implement school-based tobacco prevention, education, and cessation programs for adolescents. Components included entitlements for in-school tobacco prevention programs, funding to county offices of education for technical assistance to school districts, and a competitive grants program for innovative projects.

Medical Care Programs. From fiscal year 1989-90 to 1996-97, medical care programs received 21% of the total tobacco control budget and 70% of the total Proposition 99 Budget. This has been the most disputed amount of funding of all the programs funded by the Health Education Account.[2] The largest medical care program, the Child Health and Disability Program, reimbursed private health providers for screenings designed for early detection and prevention of disease and disability in children coming from low-income families.

Evolution of Tobacco Control Model

Since the inception of the TCP, California's model for tobacco education and prevention has undergone some modifications. From 1989 to 1994, there was a shift in intervention orientation from an individual focus to a broader, community environmental focus.[6] In late 1993, TCS staff conducted a strategic planning process to re-examine their conceptual framework for tobacco control interventions. As a result of this process and consultation with tobacco control leaders at the National Cancer Institute and Centers for Disease Control and Prevention, a decision was made to concentrate on an approach to tobacco control that emphasized:

1) Reducing exposure to environmental tobacco smoke (ETS);
2) Reducing youth access to tobacco through commercial and social sources; and
3) Countering pro-tobacco influences in the community.

In addition to the establishment of these priority areas, greater emphasis has been placed on promoting societal norms that tobacco use and exposure to ETS are not acceptable. The media campaign and community-based programs have focused on changing attitudes and the social environment regarding tobacco use.

In September 1994, CDE issued new tobacco prevention education and cessation guidelines to school districts and county offices of education. The guidelines were developed by the Centers for Disease Control and Prevention,[9] and emphasized the need to strengthen prevention education programs, particularly for grades 4 though 8. School districts were required to base their prevention programs on these guidelines. This represented a modification of the original school-based tobacco education approach, which primarily emphasized tobacco-related risk and protective factors.

Prior Evaluation of the Tobacco Control Program

The enabling legislation for Proposition 99 required an evaluation of the effectiveness of approaches used to reduce tobacco use. The legislation noted it was critical that the TCP be evaluated on an ongoing basis to determine what outcomes were being achieved and to gain insight on how to create and implement better programs.

From 1989 to 1995, three sets of evaluation studies were undertaken. The first was a biannual statewide telephone survey of adults and youth, which was conducted by the University of California at San Diego.[7] The second was a "process evaluation" that monitored and tracked the number and nature of tobacco control programs implemented across the state, which was conducted by San Diego State University.[6] The third study, conducted by the Southwest Regional Laboratory, assessed the extent of implementation and impacts of school-based tobacco use prevention education programs.[10]

The results of these studies suggest that, from 1989 to 1995, the TCP achieved its goals of reducing exposure to environmental tobacco smoke and reducing the prevalence of smoking. From 1989 to 1993, the proportion of children exposed to environmental tobacco smoke at home decreased from 25% to 20%, and the proportion of adults exposed to environmental tobacco smoke in indoor workplaces decreased from 29% to 22%.[11] Proposition 99 resulted in a 10%-13% long-term reduction in per capita cigarette consumption.[12] Adult smoking prevalence decreased from 27% in 1988 to 16% in the first half of 1995.[11] Among adolescents, Proposition 99 appears to have slowed the increase in smoking. At the time of the passage of Proposition 99, cigarette smoking among adolescents had been increasing, especially among younger adolescents. From 1990 to 1993, adolescent smoking prevalence rates remained stable. However, the most recent data from the California Tobacco Survey indicate that there was a 30% increase in the 30-day prevalence of adolescent smoking from 1993 to 1996 (from 9.2% to 12.0%).[13]

Rationale for This Independent Evaluation

Prior evaluations of the TCP focused on statewide surveillance of tobacco-related attitudes and behaviors among adults and youth (i.e., outcomes)[7,10] and tracking of program implementation.[6] Five years after the inception of the program, it became clear to program practitioners and policymakers alike that there was a need for an evaluation that would link program implementation and outcome data, and address questions about program effectiveness. In 1994, the authorizing legislation for the TCP (AB 816) mandated that such an evaluation be conducted by an independent group.

This Independent Evaluation represents the first attempt to link exposure to the California Tobacco Control Program to intermediary and ultimate outcomes. It is the first evaluation that has the capability to address the extent to which changes in TCP exposure affect changes in program outcomes. It is critical that a careful analysis of program effectiveness be conducted as the program begins its tenth year of operation. Prior evaluation efforts, and the ongoing statewide surveillance study, are not sufficient to address *how* the modalities of the TCP (i.e., community programs, the media campaign, and school programs) are working, both independently and as a comprehensive, integrated effort. In addition to determining the effectiveness of TCP activities in relation to the major goals envisioned in Proposition 99, findings from this Independent Evaluation will be useful to (a) aid policy makers in future allocation decisions, (b) help state and local program staff to make informed decisions about program improvements, and (c) serve the information needs of the broader public health and scientific communities and residents of California.

This multi-component Independent Evaluation is unique in its approach, design, and methods. A program as complex and multi-faceted as the California TCP requires a complex evaluation strategy. The primary features of this evaluation include the following:

- The evaluation design is longitudinal. We will collect data from the same types of sources in the 18 focal counties, at three points in time.
- The evaluation includes collection of data from multiple primary sources (e.g., adult residents, in-school youth, community opinion leaders, law enforcement staff, project directors, teachers, school administrators, etc.) and secondary sources (e.g., program progress reports, helpline call data, policy data, etc.).

- Both individual level (e.g., adult residents and youth) and community level (e.g., policy changes) data are collected, and can be linked at the county level.
- Data are collected from "senders" of programs (i.e., program implementors such as project directors and teachers) as well "receivers," or those who were exposed to programs (i.e., adults and youth).
- Survey instruments are tailored to assess specific program strategies and activities (e.g., specific media spots, community events, etc.), and include items that address program modifications as they occur (e.g., the ban of smoking in bars).

In sum, this Independent Evaluation has the capability to make important contributions to our understanding of the implementation and effectiveness of the California Tobacco Control Program.

Overview of This Independent Evaluation

Purpose and Objectives

In January 1996, the CDHS contracted with a Consortium of organizations, which included The Gallup Organization, Stanford University's Stanford Center for Research in Disease Prevention, and the University of Southern California's Institute for Health Promotion and Disease Prevention Research, to conduct an Independent Evaluation of the TCP.

The overall purpose of the Independent Evaluation was to help CDHS and CDE to allocate resources so as to accomplish the maximum prevention and reduction of tobacco use. The evaluation was designed to assess the effectiveness of tobacco control activities conducted through community programs, schools, and the statewide media and public relations campaign, and the overall impact of the entire program. Unlike prior evaluation efforts, the evaluation measured both the extent and nature of programmatic activities and program outcomes. Thus, it represents the first attempt to link "doses" of tobacco control programs with "responses" to them.

From January 1996 through June 1997, the Consortium planned and conducted a comprehensive, multimethod evaluation. The design for the evaluation resulted from a collaborative effort between Consortium members and "stakeholders" charged with implementing tobacco control and prevention activities throughout California. Key stakeholders included all staff who designed and managed anti-tobacco programs and activities funded by CDHS/TCS and staff and programs with a similar mission that were funded by CDE.

The Independent Evaluation was designed to accomplish four overarching objectives regarding Tobacco Control Program (TCP) activities:

1. To provide an accounting of the use of TCP funds by describing Proposition 99-funded community programs, media and public relations efforts, and school-based programs;
2. To measure social norm changes within California;
3. To assess the combined (overall), interactive, and independent effects of community programs, statewide media and public relations efforts, and school-based programs on intermediary and ultimate outcomes; and
4. To monitor changes in the tobacco industry's advertising and promotional activities in California, and, where similar data were available, compare these activities to those seen in other states.

The baseline wave of the Independent Evaluation focused on a two-year period of tobacco control activities, calendar years 1995 and 1996. This evaluation period overlapped with three fiscal years: FY 1994-95, FY 1995-96, and FY 1996-97.

Overview of This Report

This Final Report provides a synopsis of the major findings of the first wave of the Independent Evaluation. It provides TCS and CDE with a description of tobacco control programs, a baseline of program outcomes, and an examination of relationships between program activities and related outcomes.

Chapter 2 summarizes the evaluation design and methods. Chapter 3 describes components of Proposition 99-funded community and statewide media efforts and presents key findings related to TCS's priority areas, reducing ETS, reducing youth access, and countering pro-tobacco influences. Chapter 4 describes and presents key findings regarding the implementation and effectiveness of school-based tobacco control programs. Chapter 5 summarizes the extent of collaboration among program modalities, including community, statewide media, and schools. Chapter 6 summarizes key findings from the Tobacco Industry Monitoring Evaluation. Finally, Chapter 7 integrates key findings, and describes the overall impact of the tobacco control program.

A companion document, the Independent Evaluation Technical Report, presents more detailed information about evaluation methods and materials. The Technical Report is available under a separate cover from CDHS/TCS.

In the Final Report chapters that follow, we have highlighted specific key findings, which will be easily identified by looking for the following magnifying glass icon. 

CHAPTER 2

Independent Evaluation Methods

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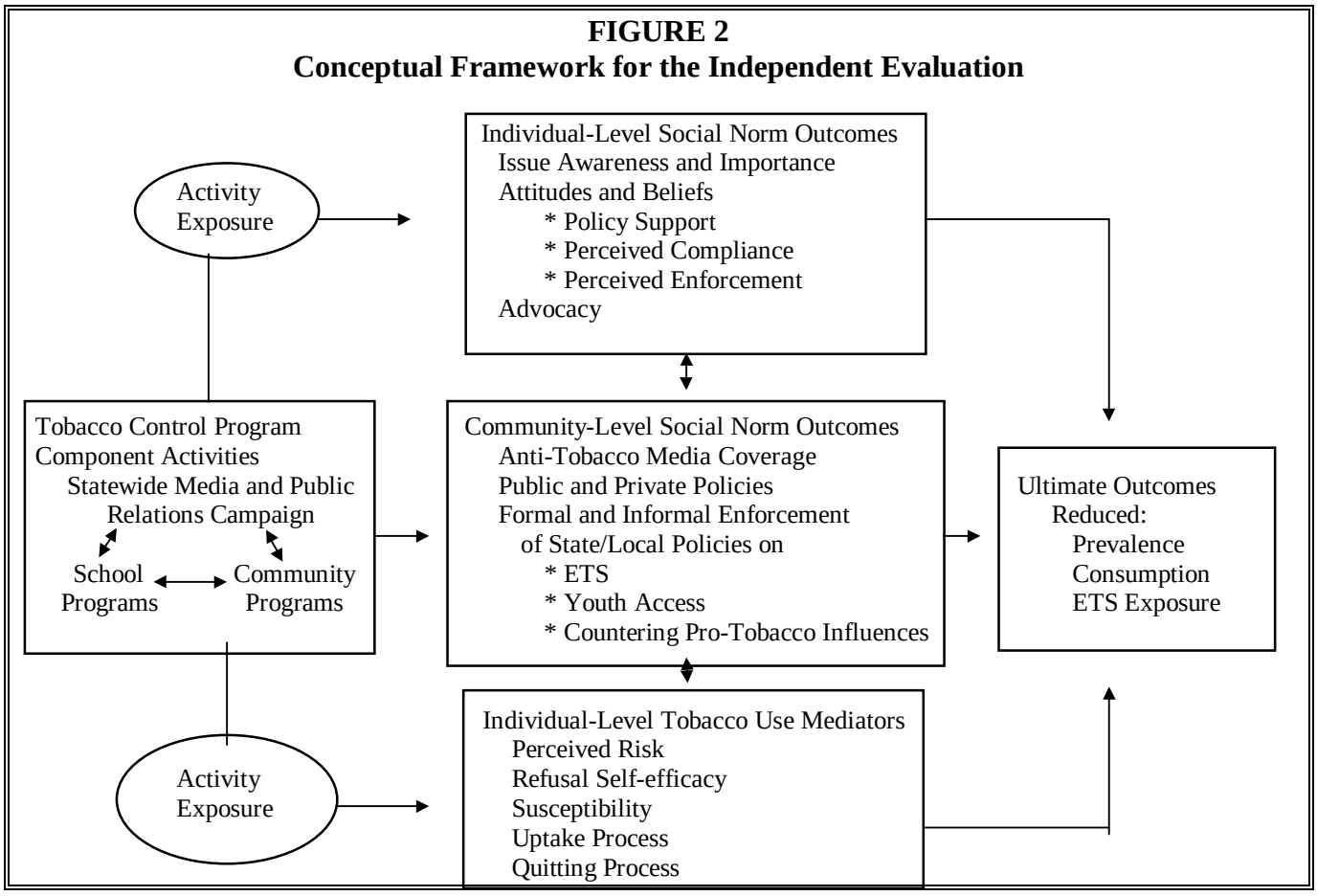
Independent Evaluation Methods

Design

The Independent Evaluation of California's Tobacco Control Program (TCP) was designed to determine the effectiveness of tobacco control activities conducted through community programs, schools, and the statewide media and public relations campaign. The evaluation includes three sequential, cross-sectional waves of data collection. The first wave was conducted from October 1996 to March 1997. The second and third waves will be conducted in early 1998 and late 1999, respectively.

The conceptual framework for the evaluation is illustrated in Figure 2. The schematic presents a simplified view of the presumed relationships among TCP activities, intermediary outcomes, and ultimate outcomes. It shows that TCP activities are conducted independently and interactively through community programs, schools, and the statewide media and public relations campaign. Activities are directed towards tobacco-related social norm changes (i.e., intermediary outcomes such as attitudes, beliefs, behaviors, and policies) within three CDHS/TCS program priority areas: (1) reducing youth and adult exposure to environmental tobacco smoke (ETS); (2) reducing youth access to tobacco products; and (3) countering pro-tobacco influences. In addition, school-based programs are directed toward changing tobacco use mediators such as perceptions and refusal skills.

FIGURE 2
Conceptual Framework for the Independent Evaluation



Following this conceptual framework, we focused our primary efforts on evaluating intermediary outcomes of the TCP. Measures of intermediary outcomes included both individual (i.e., attitudes, beliefs, and behaviors) and community (i.e., policy enactment and enforcement) level indicators.

Sampling Scheme

Given the finite resources available to conduct this evaluation and the goal of extrapolating our findings statewide, we used a two-tiered sampling strategy. This strategy allowed us to conduct an intensive evaluation in selected geographic areas while also providing data on tobacco control programs and activities statewide. The first, more intensive tier included 18 counties as the Primary Sampling Units (PSUs). In these counties, which we refer to as the "*focal counties,"* we collected and analyzed data obtained via a community survey of adults, a school-based youth survey, a community survey of opinion leaders, an assessment of media activities, and monitoring of policy development and enforcement. For the second tier, we conducted a more limited evaluation of the tobacco control program activities in the 40 California counties and 3 cities that serve as Local Lead Agencies (LLAs), and that were not selected as focal counties. In this group, we obtained data from LLAs, Regional Community Linkage Projects, Ethnic Networks, and Innovative Grantees.

To determine which of California's counties fell into each tier, we used a cluster solution approach. The approach selected representative areas from among California's 58 counties. Since we wanted to work only with county-level data for this evaluation, we eliminated the three California municipalities from among the 61 possible Local Lead Agencies that could have been selected. We also wanted to be certain to include the five largest media markets according to the population serviced in our evaluation. We therefore preselected the five largest media markets, including Fresno, Los Angeles, Sacramento, San Diego, and San Francisco. The remaining sampling frame to which we applied the cluster analysis was 53 counties. The analysis was designed to form three clusters (strata) based on county population density (population per square mile) and percent rural area. We randomly selected 13 counties from these three strata. These 13 counties plus the five media market counties yielded the sample of 18 focal counties, which include:

18 Focal Counties

Media Markets	**Medium-Density**
Fresno	Monterey
Los Angeles	San Bernardino
Sacramento	Shasta
San Diego	Yuba
San Francisco	
High-Density	**Low-Density**
Alameda	Lake
Contra Costa	Lassen
Orange	Mono
San Mateo	Plumas
Santa Clara	

In this report, the four strata of focal counties are referred to as media market counties, high-density counties, medium-density counties, and low-density counties.

Methods

We used multiple data-collection methods to examine program activities in counties across the state, and individual- and community-level outcome indicators in the 18 focal areas. Below we present a brief description of each method.

Information on *implementation* of tobacco control programs and activities was gathered from the following sources:

1. Progress Reports from all TCS-funded LLAs and grantees were content analyzed to extract information regarding the local program and media activities that were implemented. The reports covered four six-month periods between January 1995 and December 1996. Activities were coded and summarized by TCS priority area, activity type (i.e., event, presentation, media dissemination, etc.), and audience (youth, adults, government officials, etc.). Interrater reliability was .88 for priority area, .82 for activity type, and .74 for audience. A response rate of 97% was achieved.

2. Project Director Surveys were developed and distributed to project directors of all TCS-funded LLAs and grantees to obtain relevant information on issues not readily obtainable from progress reports (i.e., collaboration with schools, resource allocation distribution among priority areas, utilization of technical assistance, coalition activities, etc.). A response rate of 97% (n=112) was achieved.

3. Project Director Interviews were conducted by telephone with 68 project directors of TCS-funded groups (LLAs, regions, ethnic networks, and grantees) in the 18 focal counties. The interviews determined what activities should be included in the tailored community programs and media sections of our youth and adult surveys. These tailored questions were then used to assess people's awareness of and exposure to the tobacco control activities that project directors indicated had the widest reach or impact. A response rate of 93% was achieved.

4. Teacher Surveys were administered to fifth-, eighth-, and 10th-grade teachers in whose classrooms we assessed students. In addition, in middle and high schools we asked the principal to identify teachers who were responsible for providing tobacco education, and we mailed a survey to a random sample of those individuals. The survey assessed levels of tobacco program implementation, student responses to prevention programs, enforcement of school tobacco-free policies, parental involvement in prevention, and barriers to program implementation. A response rate of 89% (n=381) was achieved on site, and 45% (n=145) was achieved by mail.

5. School Administrator Surveys were mailed to administrators of each school (n=196) that participated in the youth survey. The survey assessed levels of program implementation in the school, enforcement of school tobacco-free policies, and principal attitudes toward the tobacco education program. A response rate of 85% was achieved.

6. School District TUPE Coordinator Survey and Interviews were conducted. A written survey was mailed to the TUPE Coordinator in each of the school districts in which we conducted youth surveys (n=54), as well as to a random sample of 59 additional districts in the focal counties. The survey assessed what types of prevention and cessation activities were implemented, how programmatic decisions were made and communicated, types and amount of staff development activities, and coordination with community programs. In addition, each respondent was interviewed by telephone. Interview data were qualitative, and assessed perceived effectiveness of various program strategies, factors that enhanced and inhibited program implementation, and program administration issues. In school districts where youth were assessed, 98% of TUPE coordinators completed a written survey and 100% completed an interview. In the second group of school districts where youth were not assessed, 76% of TUPE coordinators returned a written survey and 96% completed an interview.

7. County Office of Education Interviews were conducted with TUPE Coordinators in the County Office of Education in each of the 18 focal counties. The interviews assessed the nature and extent of training and technical assistance to school districts, program implementation, and coordination between school districts and other community agencies.

8. Written Surveys and Interviews with TCS Media and Public Relations Campaign Lead Contractors were conducted to gather information on activities such as media advocacy, collaboration with local community programs media, and frequency of media coverage. Response rates were 100% for both the written survey of statewide media contractors (n=2) and interviews with the ethnic advertising and public relations agencies (n=6).

9. Media Dissemination Schedules and Financial Statements were obtained from the lead and three ethnic contractors for the statewide media campaign. This information allowed us to assess how much effort and money the media campaign spent in each TCS priority area for general and ethnic audiences. For the ethnic media, only overall expenditure data were received; there was no specific information on priority area spending.

10. Content Analysis of Statewide Media Campaign was conducted to assess what types of media messages were disseminated via television, radio, outdoor, and print advertisements between July 1995 and December 1996. The analysis examined message priority area focus and objective. One coder with a Masters degree in communication reviewed all 19 media spots.

11. Funding and Budget Information for DHS- and CDE-funded community, media, and school programs was obtained for fiscal years from 1990 to 1997.

12. Archival Data on STAKE Act Materials Distribution were obtained from the Tobacco Education Clearinghouse of California for November 1995—December 1996 to estimate local activity regarding promotion of the STAKE Act.

Data on *program outcomes* were obtained using the following methods:

1. Adult Computer-Assisted Telephone Interviews (CATIs) were conducted with approximately 383 adults in randomly selected households in each of the 18 focal counties. The interviews assessed opinions, attitudes, and actions taken regarding tobacco control activities. In each county, tailored questions were included to determine exposure to local programs. Interviewers attempted to contact 30,388 randomly selected telephone numbers. Of these, 24,101 (79%) were successfully contacted. Of the telephone numbers successfully contacted, 11,958 adults (50%) completed the screening questionnaire. Of the respondents who were screened, 7,127 (60%) were eligible to participate in the survey. Of the eligible respondents, 6,985 (98%) completed the survey. The final sample of 6,985 adults represents 29% of all those who were contacted, 58% of those who were screened, and 98% of those who were eligible.

2. School-Based Youth Surveys of 15,938 students in grades 5, 8, and 10 from 196 schools across the 18 focal counties were conducted during the 1996-97 school year. School districts were randomly selected in each focal county, schools were randomly selected within each district, and classrooms of students were randomly selected within schools to participate in the evaluation. The survey assessed students' tobacco-related beliefs, attitudes, knowledge and behaviors, and exposure to tobacco control programs in schools, communities, and the mass media. Exposure to county-specific program activities was assessed with tailored survey items. Parental and student consent to participate was obtained for 96% of the eligible students.

3. Opinion Leader CATIs were conducted with a representative sample of key community opinion leaders from the 18 focal counties. A stratified quota sampling design was employed whereby eight organization types (government, law enforcement, education, health, media, business, youth, and ethnic) formed the strata. There were 750 eligible respondents. Eligibles who refused the telephone interview were replaced by another respondent from the same or a similar organization within strata. Interviews assessed attitudes and involvement related to tobacco control issues. Including replacements, a total of 712 opinion leaders were interviewed, representing 95% of the target quota sample.

4. Enforcement Agency Staff Surveys were distributed to 493 identified enforcement agency officials in the 18 focal counties. The surveys assessed enforcement of state and local policies related to ETS and youth access to tobacco. Response rates were 83% for youth access and 80% for exposure to ETS.

5. Content Analysis of Tobacco-Related Newspaper Coverage was conducted on 56 general and ethnic newspapers published in the 18 focal counties. The analysis assessed the amount of tobacco-related coverage and advertising in a randomly selected sample of newspaper issues during the period of May to December 1996.

6. Tobacco Industry Monitoring Data were collected through analysis of tobacco advertising in samples of local newspapers, billboards, special events, magazines, and brand merchandise catalogs. Coding schemes were developed to assess the amount and content of pro-tobacco industry activities in California and elsewhere in the nation.

7. Local Policy Data on tobacco control policies for all California municipalities were obtained from the Americans for Non-Smokers Rights. The data were reviewed and coded to determine the amount and type of local policy enactment through December 1996. When necessary, local officials were called to clarify or obtain additional policy information.

8. STAKE Act Data were obtained from TCS electronic copies of STAKE Act 800-number databases for calendar year 1996 showing county-specific call records to the toll-free telephone line.

9. Helpline Call Data from the University of California at San Diego (UCSD) were analyzed to determine weekly volume and caller characteristics for calls to the California Smokers' Helpline and California Chewers' Helpline during the period July 1995—December 1996.

10. California Tobacco Survey (CTS) Data for 1993, California Adult Tobacco Survey (CATS) data for 1993, 1994 and 1995, and Behavioral Risk Factor Surveillance Survey (BRFS) for California and other states data (1984-1995) were obtained. Several items from those surveys were compared to identical items on the Independent Evaluation adult survey to assess trends in program outcome variables over time.

11. Monitoring the Future Study Data, 1991-1996, for 8th- and 10th-graders in California and other states, were obtained from the University of Michigan Institute for Social Research, to examine trends in smoking prevalence and social norm indicators over time.

Data Analytic Approach

In this Final Report, we present four general types of analyses:

- Descriptive analyses of local TCP implementation, i.e., the type, amount, reach, and availability of programs and activities, to address issues of accountability;
- Effectiveness analyses of the independent contributions made by community programs, statewide media, and school-based programs on TCP intermediary outcomes;
- Effectiveness analyses, and a qualitative integration of the combined (interactive) contributions made by community programs; statewide media, and school-based programs on intermediary and ultimate outcomes; and
- Descriptive analyses of the Tobacco Industry Monitoring Evaluation data.

As is shown in our conceptual framework (Figure 2), we assessed program dosage by collecting data from both program implementors or "senders" (e.g., LLA project directors, school teachers, etc.), and individuals who were exposed to tobacco control activities in communities (i.e., "receivers" such as youth, adults, and opinion leaders). The data from senders provided information about levels of program implementation. For example, we asked teachers how much time they had devoted to tobacco prevention instruction during the previous year. To measure exposure to programs, we included survey questions such as, "Have you heard of the effort in your county to enforce AB 13, the law that bans smoking in restaurants and workplaces?" and "During the past year, did you have any school lessons about tobacco use?" To the extent possible, we included parallel program exposure questions across the youth, adult, and opinion leader surveys.

In our initial data analytic steps, we examined associations between data from senders (i.e., program implementation levels) and data from receivers (i.e., program exposure levels), which showed the extent to which program implementation was effective in reaching people. In this report, we focus on analyses of relationships between program exposure and intermediary outcomes (e.g., attitudes, opinions, beliefs, and behaviors), which provide information about program effectiveness, or the extent to which receivers' self-reported exposure was associated with intermediary program outcomes.

In most of our analyses of associations between TCS-funded (community and media) program exposure and program outcomes, we used the individual as the unit of analysis. Our primary reason for conducting analyses at the individual level was that in preliminary analyses at the county level (n=18), often one or two counties were statistical outliers. These outliers distorted correlations and caused regression models to show relationships that were not true for the majority of counties. Thus, county-level analyses may have led to misinterpretations of the data. A second reason for using individual as the unit of analysis was to increase our statistical power to detect associations. With a cross-sectional sample of only 18 focal counties, county-level analyses had inadequate statistical power to detect significant associations between exposure and outcomes. Future waves of data will provide repeated measures of these counties, which will increase our statistical power.

In our individual-level analyses, we took into account the dependence among individuals within the 18 focal counties (i.e., intraclass correlations). We included sampling strata and county nested within strata as fixed effects in the regression models. This enabled us to directly test for county and strata effects. Analysis of Variance (ANOVA) was used to test for associations between program exposure and intermediary outcome variables. In each model, in addition to the effects of program exposure, strata, and county nested within strata, we included two-way interactions between (a) program exposure and strata, and (b) program exposure and county nested within strata. Overall, we found no evidence for the interactive effects. Thus, to cut down on the experiment-wise error rate, we included only the main effects of program exposure, strata, and county nested within strata. To further reduce Type I error, we report only those associations that were statistically significant at the $p < .01$ level.

There were exceptions to the above strategy for analyses of TCS-funded program effects related to policy. Where we had program dosage and outcome data that were measured at the community level rather than the individual level, the unit of analysis was the county. Pearson Product Moment correlations were used to analyze relationships between program dosage and outcomes (e.g., levels of program activity and policy enforcement, respectively). In these analyses, sampling strata were not taken into account. We examined the data for outliers and have made note of such instances in the report. Correlations of $r \geq .30$ are reported.

For the TCS program priority area chapters that follow, we present statistically significant program exposure effects in the sections that are labeled "community program effects" and "media program effects." For ease of presentation, we include statistically significant strata effects as part of the descriptive treatment of variables in each chapter. Significant effects for counties nested within strata were relatively infrequent, and discussion of these effects would involve a level of detail not appropriate for inclusion in this report.

To analyze associations between CDE-funded (school) program exposure and outcomes, we used school as the unit of analysis. In our initial data analytic steps, we had examined relationships between exposure and outcomes using individual as the unit of analysis and including the effects of program exposure, sampling strata, and county nested within strata on outcomes. Similar to the TCS-funded program results, we found no evidence for interactions between strata and program exposure. Thus, because we had adequate statistical power with a sample size of 196 schools (66 elementary, 65 middle, and 65 high schools), we created school means and examined exposure/outcome relationships at the school level using Pearson Product Moment correlations. In the school programs chapter that follows, we report correlations that were statistically significant at the $p < .05$ level.

Throughout the report, we present data from the community adult and youth surveys that were weighted on the basis of adult population demographic characteristics and school enrollment data, respectively.

Capabilities and Limitations of the Independent Evaluation

This Independent Evaluation employed a quasi-experimental observational design. [37] We utilized multiple methods, multiple data sources, and collection of primary and secondary data to assess TCP activities and TCP outcomes. Wave 1 data collection enabled us to do the following:

- Describe the amount, type, reach, and availability of specific TCP activities implemented via three modalities (i.e., community programs, statewide media campaign, and school programs).
- Describe levels of exposure to specific TCP programs and activities (via communities, media, and schools) on the part of sampled community residents, in-school youth, and community opinion leaders.
- Describe indicators of TCP outcomes (i.e., tobacco-related attitudes, social norms, behaviors, policies, etc.).
- Determine the effectiveness of TCP programs and activities by analyzing the strength of relationships between delivery of, or exposure to TCP activities and outcomes.
- Describe the tobacco industry's advertising and promotional activities in California, and, where similar data were available, compare these activities to those seen in other states.
- Compare indicators of tobacco-related social norms (i.e., beliefs, behaviors, etc.) in California with those elsewhere in the nation.

Our Wave 1 analyses of program effectiveness were limited by factors that affect all cross-sectional evaluation designs with no comparison group. With measures of program exposure and outcomes *from one point in time only*, a significant positive relationship between TCP exposure and outcomes can suggest that the program may have influenced the outcome indicators, but it does *not* allow one to conclude that the program *caused* the outcomes. With the cross-sectional data obtained in Wave 1, we were able to look at *associations* between program exposure and outcomes, but we could not infer that observed effects or outcomes were *caused* by program exposure. For example, we found significant positive associations between school program exposure and several outcome indicators (e.g., tobacco-related attitudes), which meant that schools with high program exposure also tended to have better scores on the outcome indicators. However, our cross-sectional design did not allow us to rule out many of the plausible alternative explanations for this relationship (e.g., schools with high exposure were different from schools with low exposure in terms of characteristics that we did not measure, schools with high exposure experienced some event that schools with low exposure did not, these outcomes could have also been observed in schools that did not receive the program, etc.), and therefore were unable to state that the TCP caused the outcomes.

However, the addition of Waves 2 and 3 during the next three years (1998-2000) considerably increases the capability of the Independent Evaluation to attribute outcomes to programs. The Wave 1 data will become a baseline from which *changes* in TCP activities and resulting outcomes may be measured longitudinally. Specificially, the longitudinal evaluation design will enable us to:

- Describe changes that occur in program implementation and outcome indicators over a four-year period.
- Plot and analyze time trends on key TCP outcome indicators.
- Determine the effectiveness of the TCP by analyzing relationships between changes in TCP exposure and changes in TCP outcomes.
- Compare time trends on tobacco-related social norm indicators in California to those in other states.
- Describe changes in the tobacco industry's advertising and promotional activities in California, and, where similar data were available, compare these changes to those seen in other states.

With additional waves of data from the same counties utilizing the same methods, we will be able to employ statistical techniques that are appropriate for testing whether the program may have caused an impact (e.g., repeated-measures multiple regression, path analysis, cross-lagged panel correlations, etc.).

Finally, the question has been raised about whether this evaluation will be able to test the effectiveness of individual activities, strategies, or programs of the comprehensive TCP effort (e.g., specific media spots, curricula, or interventions). While the evaluation was not designed to allow us to state definitive conclusions about the effects of individual strategies on tobacco-related outcomes, it does provide data on some elements of the effectiveness of individual strategies. For example, the evaluation data provide information about the extent to which individual strategies or activities were implemented in communities, schools, and the media, and the extent to which sampled youth, adults, and community opinion leaders were exposed to them.

There is particular interest in whether the evaluation can determine the effectiveness of various media strategies. An experimental trial is the preferred methodology for obtaining a definitive answer about effectiveness of any program strategy. For example, one might conduct a trial to compare the tobacco-related attitudes and behaviors of individuals that were randomly assigned to see specific media spots to those who did not see the spots. With the Independent Evaluation quasi-experimental observational data, it is difficult to rule out plausible alternative explanations for any observed relationship between exposure to media spots and outcomes. First, most sampled adults and youth were exposed to more than one media spot, so it is difficult to isolate a group that was only exposed to one spot that utilized a specific strategy (e.g., hard-hitting against the tobacco industry). Second, individuals exposed to only one spot are likely to differ from a group that saw multiple media spots, on variables that are correlated with the outcomes (e.g., demographic characteristics). Thus, the design of the Independent Evaluation will allow us to describe which of the media spots we assessed were most strongly associated with intermediate outcomes (e.g., attitudes toward the tobacco industry, calls to the smoker helpline, etc.). However, recognizing our study limitations, we must present multiple caveats and consider alternative explanations for such associations.

CHAPTER 3

Evaluation of TCS Programs/Activities by TCS Priority Areas

A. Community and Media Programs and Activities: Accountability Assessment
B. Environmental Tobacco Smoke (ETS)
C. Youth Access to Tobacco
D. Countering Pro-Tobacco Influences

A. Community and Media Programs and Activities: Accountability Assessment

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Laura Spanjian, M.A.

A. Community and Media Programs and Activities: Accountability Assessment

Introduction

The main objectives for this section of the report are to:

1. Examine the distribution of local CDHS/TCS community and media funding;
2. Examine the type and extent of community and media program activities that address the three TCS priority areas;
3. Examine differences in statewide and evaluation sample descriptive program data; and
4. Examine the relationship between delivery of community and media programs and exposure to community and media programs.

Data sources used in these analyses included DHS and CDE funding and budget information; progress report data from TCS-funded agencies; written project director surveys; written surveys and interviews with TCS media and public relations campaign lead contractors; media dissemination schedules and financial statements; content analysis of the statewide media campaign; and adult and youth surveys.

Statewide Funding

Per capita funding for TCS-funded community and statewide media programs is relatively low compared to two other large-scale public health interventions.

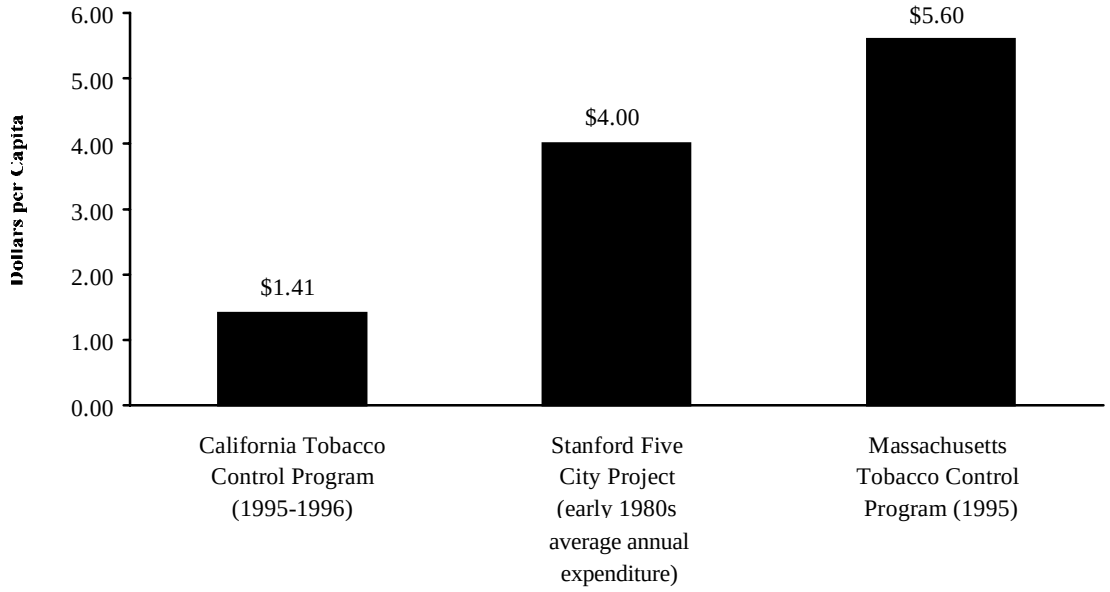
Funding for Local Lead Agencies (LLAs) and grantees (including ethnic networks and regional projects) amounted to nearly $100 million dollars during the three *fiscal* years that *overlap* with the two calendar-year evaluation period of 1995 and 1996. The total allocation for TCS-funded community programs during *calendar* years 1995 and 1996 was approximately $59.91 million dollars. Approximately $30.8 million dollars was spent on the media campaign additionally during these two calendar years. Assuming 32.231 million California residents in 1996 (1997 Department of Finance estimate):

- Excluding administrative and evaluation costs, all TCS-funded programs and statewide media delivered in calendar years 1995 and 1996 totaled approximately $2.81 per California resident, or $1.41 per capita per year.
- By comparison, in 1995 the Massachusetts Tobacco Control Program expended $34 million—approximately $5.60 per capita—on its media and local program activities[14] (excluding research and program support).**
- Furthermore, the Stanford Five City Program expended annually about $4.00 per capita in its community-based program for multiple cardiovascular risk-factor prevention during the early 1980s.[15]

Thus, TCS-funded tobacco control programs received a third to a quarter of funding per capita of two comparable large-scale public health interventions (Figure 3).

** 1995 U.S. Census estimate for Massachusetts population was 6,073,550 people.

FIGURE 3
Per Capita Funding for TCS-Funded Community and Statewide Media Programs Compared to Two Other Large-Scale Public Health Interventions



Local Program Funding in the Focal Evaluation Counties

High-density evaluation counties had less to spend per capita than medium- and low-density evaluation counties.

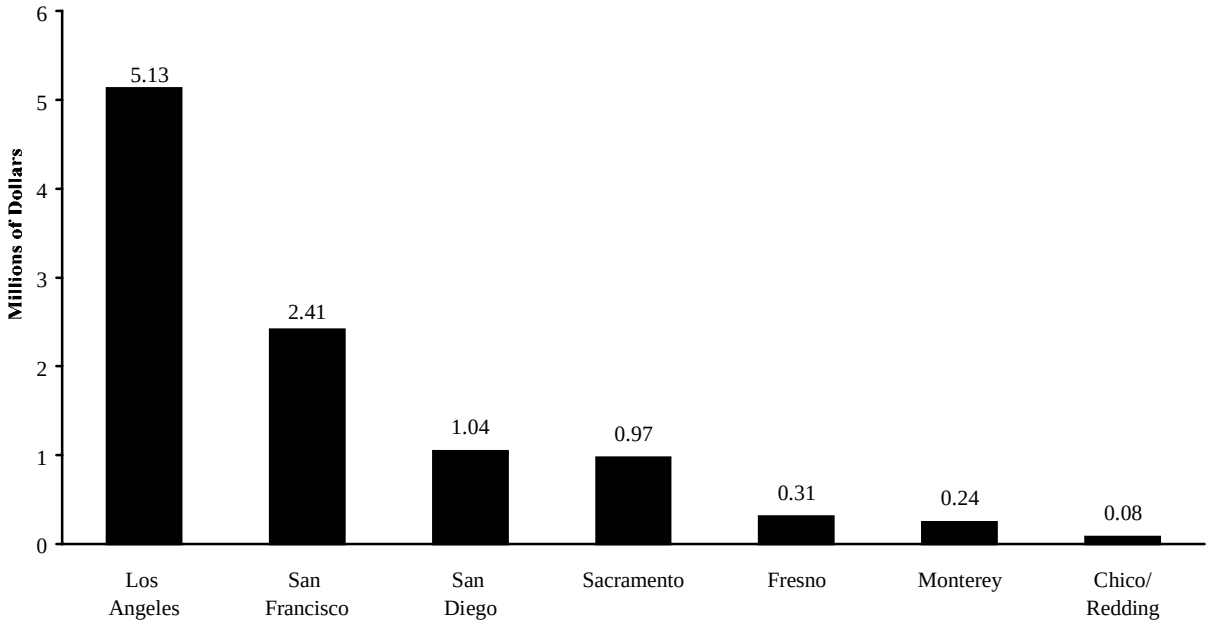
Funding from the LLA and competitive grantee funds (excluding statewide media) over the 1995-1996 calendar years averaged $1.86 per capita statewide. However, because of funding formulas for LLAs and variation in competitive grantee funding, not every county in the state had a comparable average to spend on local program activities during the evaluation period. High-density counties had the biggest cuts when tobacco funding was reduced. During the low point of funding from the Proposition 99 Health Education Account in 1995-1996, the 10 highest-density counties in our evaluation sample had an average of $1.27 per capita (range $.077-$2.63), the four medium-density counties averaged $2.65 per capita (range $1.01-$5.68), and the four low-density counties averaged $17.36 per capita (range $8.92-32.92). The low level of funding for tobacco control as a whole, and for the highest density counties in particular, needs to be factored in when judging the magnitude of local program effects on tobacco-related outcomes.

Media Campaign Funding in the Focal Evaluation Counties

Expenditures for the statewide media campaign were driven by media markets.* California has a total of 12 media markets. Sixteen evaluation counties were located in seven of these media markets; two evaluation counties were located in the Reno, Nevada media market that does not receive any California media. The media markets for the 18 focal evaluation counties include: Los Angeles - covering Los Angeles, Orange and San Bernardino counties; San Francisco - covering Alameda, Contra Costa, Lake, San Francisco, San Mateo, and Santa Clara counties; San Diego - covering San Diego county; Sacramento - covering Plumas, Sacramento, and Yuba counties; Fresno - covering Fresno county; Monterey - covering Monterey county; Chico/Redding - covering Shasta county; and Reno, Nevada - covering Lassen and Mono counties.

Figure 4 shows how a total of $10.19 million was spent on television, radio, and outdoor advertising from July 1995 to December 1996 as part of the general-audience media campaign in seven media markets. Though it varied among counties, approximately 60 percent of total expenditures was spent on television advertising. The remaining 40 percent was divided evenly between radio and outdoor advertising.

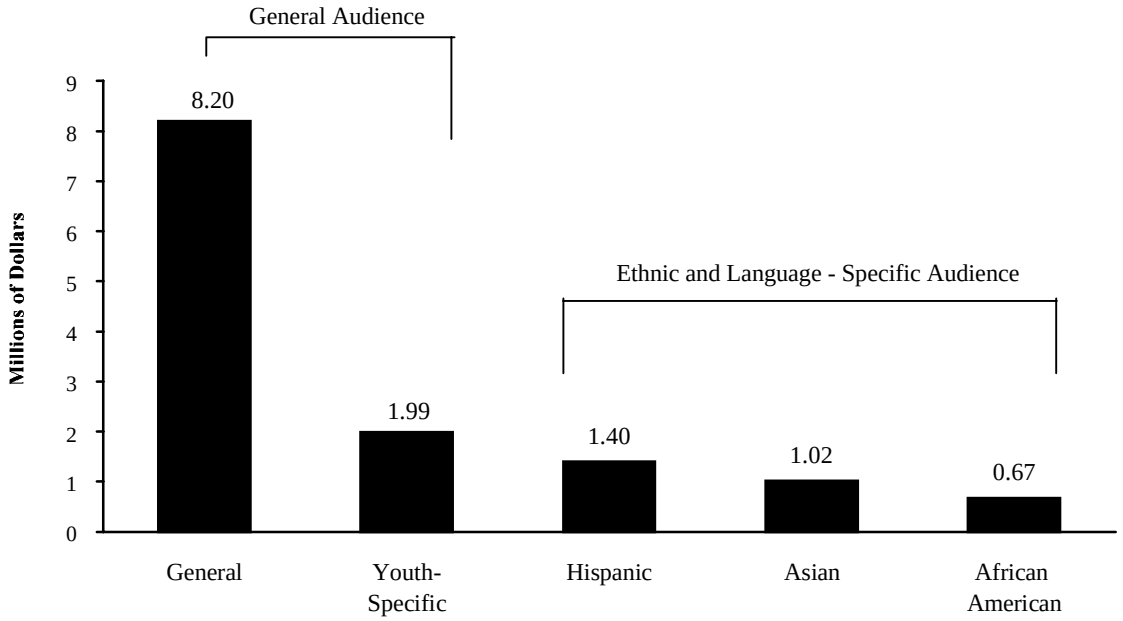
FIGURE 4
Dollars Spent in Seven California Media Markets



* General-audience advertisements were bought according to three media tiers: Tier I = Los Angeles; Tier II = Fresno, Sacramento, San Diego, San Francisco/San Jose, and Tier III = Bakersfield, Chico, El Centro, Monterey/Salinas, Palm Springs, Redding, and Santa Barbara/San Luis Obispo.

In addition to funds for the general-audience campaign, an additional $3.08 million was spent for ethnic- and language-specific media. Figure 5 shows how general-audience advertising dollars and ethnic- and language-specific media dollars were spent among different audiences from July 1995 to December 1996 in the seven media markets covering the evaluation counties.

FIGURE 5
Dollars Spent on Advertising
Directed Toward Specific Audiences
(July 1995—December 1996)



TCS-Funded Program Activities

Local Program Activities Across the State

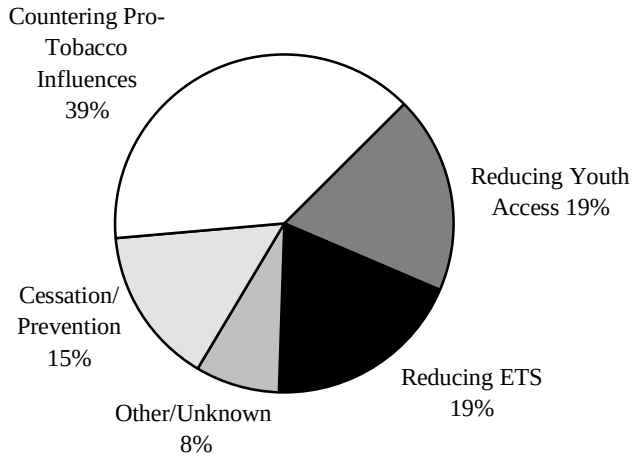
Local community programs put most of their effort into the three TCS priority areas.

During calendar years 1995-96, TCS funded 116 local community agencies throughout the state, which included:

- 61 local health departments, designated as Local Lead Agencies (LLAs);
- 11 regional community linkage initiative projects, each encompassing 1-14 counties;
- 4 statewide ethnic networks; and
- 40 local (city- or county-specific), multicounty, and statewide competitive grantees.

As coded from the 1995-96 progress reports, these agencies together conducted a total of 14,991 activities, a rate of 4.6 activities per 10,000 California residents. In accordance with the goals of the tobacco control program, most community program activities addressed the TCS priority areas of reducing exposure to environmental tobacco smoke, reducing youth access to tobacco, and countering pro-tobacco influences (Figure 6).

FIGURE 6
Focus of Community Program Activities by TCS Priority Area, Statewide (1995-96)



Seventy-five percent of tobacco control activities involved community education or mobilization, and 25% involved community media (public relations, public education, and media advocacy) (Figure 7).

FIGURE 7
Types of Community Program Activities, Statewide (1995-96)

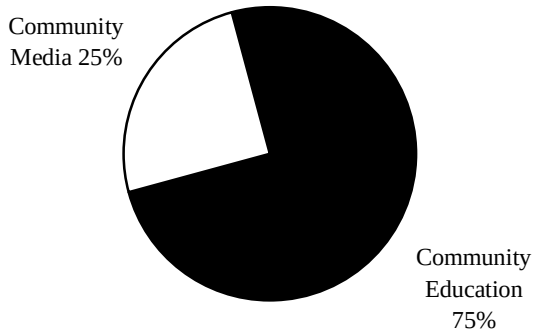
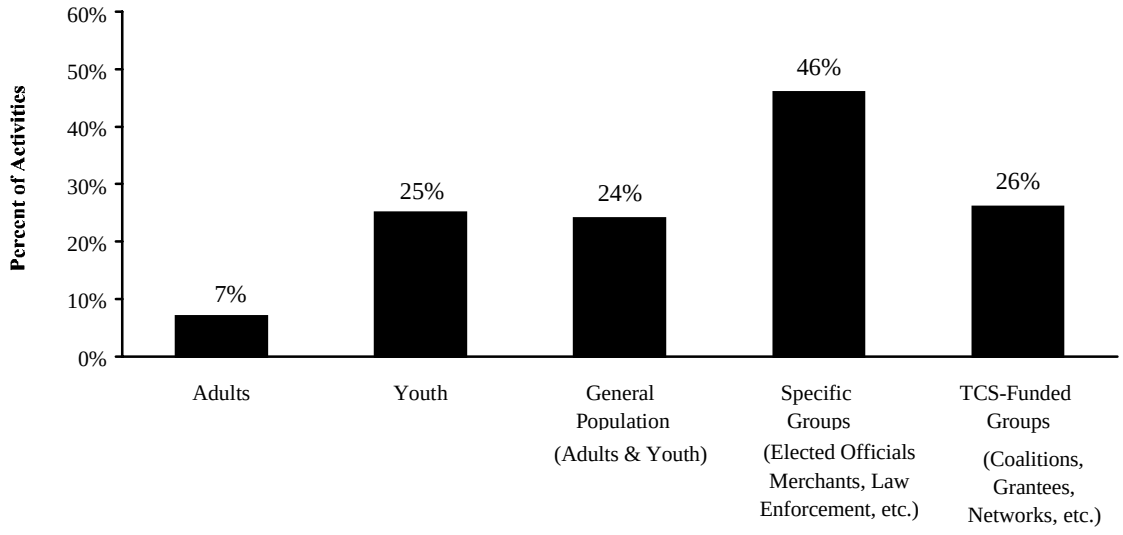


Figure 8 shows the percentage of local program activities directed at different groups.

FIGURE 8
Groups To Whom Local Program Activities Were Directed*

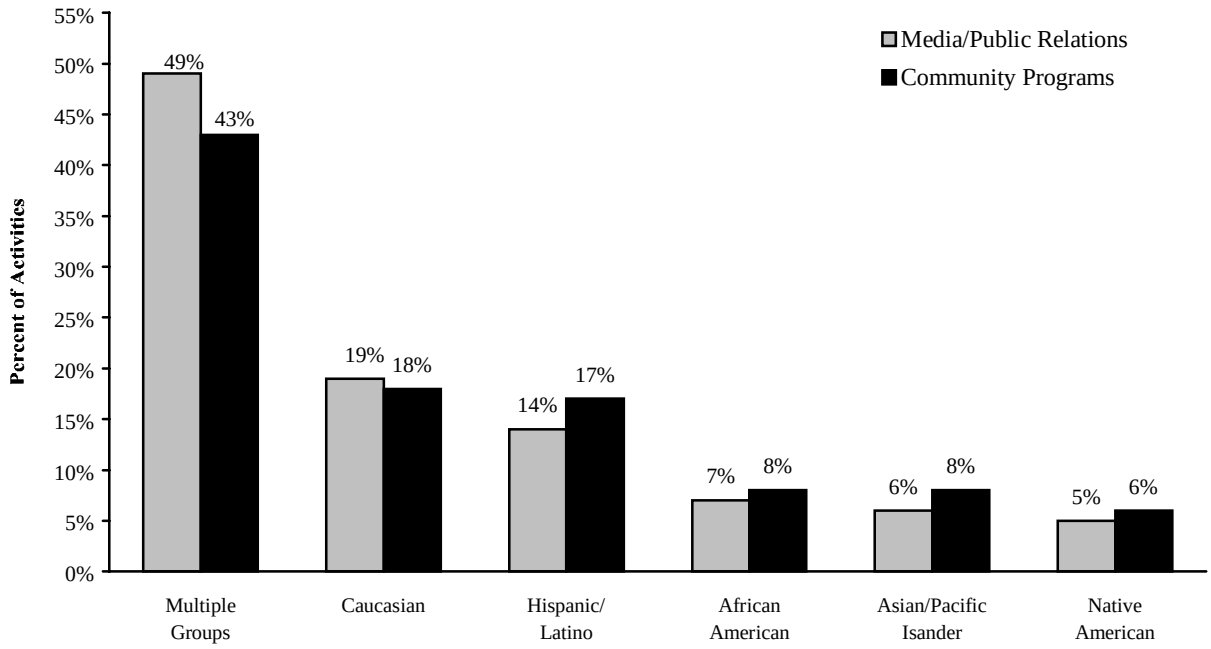


* The total percentage will add up to more than 100% since some groups are not mutually exclusive.

A third of activities were developed and delivered to a wide variety of racial and ethnic groups.

Since the tobacco industry explicitly targets racial and ethnic groups, it is important that programs be developed and implemented for these groups. The tobacco control program invests at least a third of its resources specifically to reach the wide variety of racial and ethnic groups constituting the population of California. Project directors from 112 agencies indicated that 39% of their community programs and 32% of their media/public relations activities were directed toward specific racial/ethnic groups; an additional 43% of community programs and 49% of media/public relations activities were directed toward groups of multiple ethnicity (Figure 9).

FIGURE 9
Percent of Community Programs and Local Media/Public Relations Activities Directed Toward Specific Racial/Ethnic Groups, Statewide (1995-96)



Statewide Media Campaign Activities

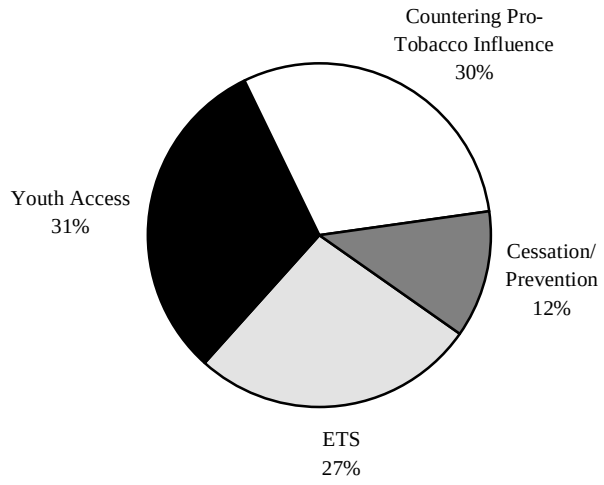
From July 1995 to December 1996, a total of 19 general-audience advertisements (11 television, four radio, and four outdoor) addressing TCS's three priority areas and cessation and/or prevention were disseminated.

Among general-audience advertisements:

- 79% focused on promoting awareness of tobacco issues versus 21% that focused on behavioral action.
- 15% included the helpline number, 1-800-7-NO-BUTTS, which offers help to people who want to stop smoking.
- 21% included the STAKE Act number, 1-800-5-ASK-4-ID, which lets people report merchants who are illegally selling cigarettes to youth.

Figure 10 shows the percent of total dollars spent for general-audience ads in each priority area.

FIGURE 10
Percent of Total Dollars Spent on
General-Audience Advertisements by Priority Area



Among the ethnic media, a total of 23 ads (four television, seven radio, seven outdoor, and five print) were disseminated; 87% focused on ETS. Thirteen advertisements were produced for the Hispanic/Latino market, six for the African American market, and four for the Asian/Pacific Islander market.

Sixty-two percent of the Hispanic/Latino advertisements included the Spanish language helpline number, 1-800-45-NO-FUME as compared to 15% of the general-audience advertisements including the English helpline number.

Selected Findings in the 18 Focal Evaluation Counties

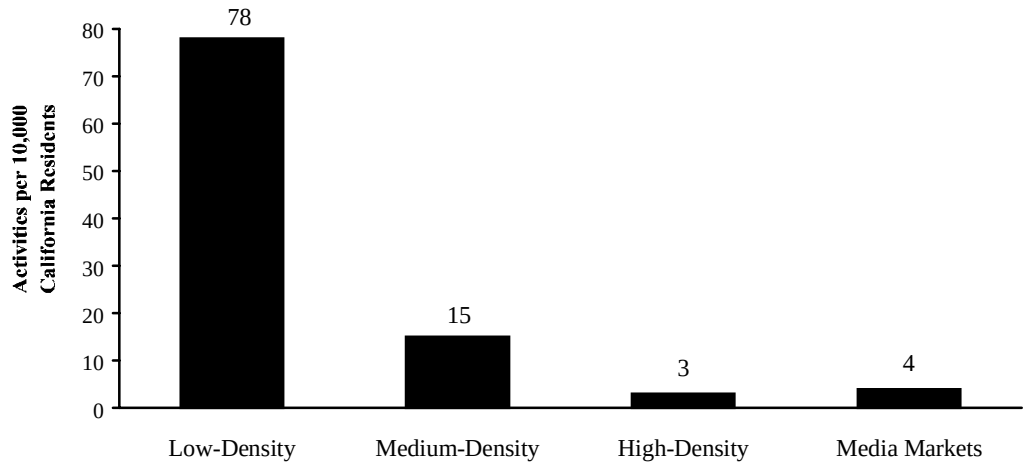
Local Community Programs

Other than a higher rate of activity per 10,000 population,* the descriptive data for the 18 focal counties were virtually identical to the statewide data (i.e., type of activities and audience to whom they were directed were similar).

Type of county (low-density vs. medium-density and high-density counties) was strongly associated with the program activity rate, as would be expected from the funding pattern.

Low-density counties had many more activities per 10,000 residents than other types of counties (Figure 11).

FIGURE 11
Local Program Tobacco-Control Activities per 10,000 Residents by Type of County, Focal Evaluation Counties (1995-96)

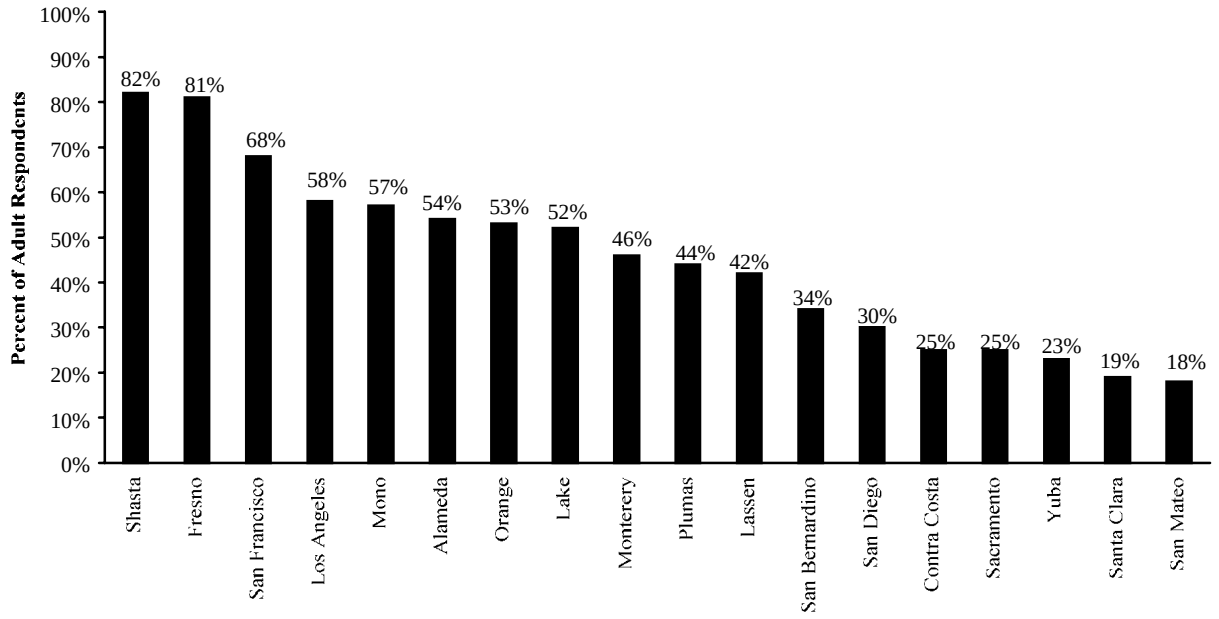


* The focal counties had an overall higher rate of activity (22.6 activities per 10,000 people) than the statewide data indicated (4.6 per 10,000 people); this was primarily driven by two low-density counties (Mono and Plumas) that had very high rates of reported activity.

- ***There was a great deal of variability in the percent of adults who had heard about tobacco control programs across the 18 focal counties.***

Approximately half of the adults surveyed (46%) had heard of at least one of two local TCS-funded community programs implemented in their county of residence. About half of the residents in small-density counties and media-market counties had heard of at least one program. Less than half of the residents in medium-density counties and high-density counties had heard of at least one program (40%).

FIGURE 12
**Percent of Adults Who Reported Having Heard about at Least One TCS-Funded Community Tobacco Control Activity, by Focal County*
(1996)**



- ***Most community members heard about local programs through the media.***

Seventy-seven percent of adults who had heard of local community programs reported that they heard about the program through television, radio, billboard, print, brochures/fliers, or posters.

* It is likely that Shasta and Fresno have such high recall rates because residents in these counties were asked about programs that had a long history in each county.

- ***Community programs that focused on ETS seemed to engender the greatest public exposure compared to programs that focused on youth access or countering pro-tobacco influences.***

  About 49% of people who had specific ETS programs in their community reported having heard of the program, compared to 16% of people who had specific youth access programs and 11% of people who had specific countering pro-tobacco programs. The higher rate of recall for ETS may be due to the longevity of programs and publicity on this topic.

- ***The population density of the county had an influence on whether youth were aware of local community-specific programs.***

  Across the entire sample of 10th-graders surveyed, almost 15% reported having heard of at least one of two local community-specific programs implemented in their county of residence. The percent of 10th-grade students hearing of at least one local community program varied across type of county. Nearly 71% of 10th-grade students from low-density counties reported hearing of at least one local community program, while only 14% to 18% of students in the other types of counties reported the same.

- ***There was a moderately strong association between delivery of program activities and recall of programs.***

  Correlations between county-aggregated levels of total program activity (from coded progress reports) and reported exposure to community-specific programs (from surveys) indicated the more activities of any kind conducted in a county during 1995-96, the higher recall of local programs reported by community adults ($r = .43$) and 10th-grade students ($r = .47$). Moreover, the greater the amount of youth-focused program activities (nonschool) conducted in a county, the higher the recall of local programs reported by high school students ($r = .52$).

Statewide Media Campaign in the Focal Evaluation Counties

Exposure to the general-audience media advertising campaign was high.

The evaluation assessed recall of four of the television ads, three of the radio ads, and two of the outdoor ads focusing on TCS priority areas that were part of the media campaign during 1996. Questions were also asked about two historic ads, run on television in earlier years of the TCS media campaign, to compare recall with 1996 campaign ads. For each of these TCS media campaign spots, adults and youth were asked if they recalled seeing or hearing the ad. If they recalled it, then they were asked to identify the correct meaning of the ad, to validate the accuracy of their recall. In general, the media spots with the highest recall and accuracy of recall were the televised spots designed to counter pro-tobacco influences, and messages about victimization of others through tobacco use (Table 1).

TABLE 1
RECALL AND ACCURACY FOR STATEWIDE MEDIA CAMPAIGN

				ADULTS		10TH GRADE YOUTH	
Channel	Spots	Date the Ad Last Ran	Priority Area*	Percent Recall	Percent Accurate (of those who recalled)	Percent Recall	Percent Accurate (of those who recalled)
TV	Victim Wife	12/96	ETS	67	89	63	82
TV	Attractiveness	12/96	CESS	n/a	n/a	15	31
TV	Hooked	12/96	COUNT	54	86	64	71
TV	Delivery Room	11/96	CESS	38	84	n/a	n/a
TV	Boardroom**	5/95	COUNT	40	96	51	93
TV	Clifford**	11/93	CESS	na	na	67	34
Radio	Baseball	6/96	COUNT	25	52	28	29
Radio	Secondhand Sound	6/96	ETS	19	80	38	44
Radio	Save a Life	12/96	YA	14	19	20	12
Outdoor	Weapon	12/96	ETS	37	64	30	55
Outdoor	STAKE Act	12/96	YA	32	74	25	52

* Note ETS = Environmental Tobacco Smoke; CESS = Cessation; COUNT = Countering Pro-Tobacco Influences; YA = Youth Access to Tobacco

** Historic spots (aired prior to 1996)

n/a = question not asked of respondent type

Recall for some historic media spots was high.

Overall, television ads had moderate to high recall among both adults (38-67%) and youth (51-67%), with the exception of "Attractiveness" (15%), which was an ad originally designed for youth in Massachusetts, not California. Accuracy of recall, which measured how well a message is understood, varied for the television anti-tobacco ads. Two anti-industry ads ("Hooked" and "Board Room"), which showed how the industry attempts to manipulate smokers, had high accuracy of recall among adults (86-96%) and youth (71-93%). It is interesting to note that one of these ads, "Boardroom," had not been shown in more than one year prior to the survey, yet approximately half the respondents had seen it, and it had the highest accuracy of recall of all the ads assessed. The other two televised spots with high accuracy of recall were "Victim Wife" and "Delivery Room," both of which used very strong emotional appeals portraying the life-threatening effects of smoking on innocent victims. The "Clifford" spot, which had been shown with several variations two years prior to the survey, had high recall among youth (67%), but low accuracy of recall (34%).

Among adults (32-37%) and youth (25-30%), recall of outdoor ads was considerably lower than recall of than television ads. The "STAKE Act" message about calling an 1-800 number to report illegal sales to youth was more accurately recalled among adults (74%) than was the "Weapon That Kills At Both Ends" message about the risks of smoking (64%). Outdoor ads had considerable reach given that less money was spent on their dissemination than on television or radio ads.

Of the three media channels, radio ads had the lowest recall among adults (14-25%). Among youth, recall of radio ads (20-38%) was similar to recall of outdoor ads. Accuracy of recall was low to moderate for adults (19-52%), except for Secondhand Sound, which had high accuracy of recall among the adults who heard it (80%).

High recall rates for a particular media spot may be a function of several factors, including the attention-getting appeal, placement, and/or campaign reach for a particular spot (i.e., how widely it was circulated, and for how long). It is important to consider the accuracy of recall, which illustrates which ads are not only remembered but also understood. The high accuracy of recall rates for four of the televised ads suggest that messages with strong anti-industry attacks and heartrending appeals about victims may be the most memorable among adults and youth.

The relationships between certain types of ads (categorized by TCS priority area) and tobacco-related attitudes are discussed in the report chapters that follow. The findings show that exposure to the set of TCS ads that we assessed was significantly assocated with attitudes about environmental tobacco smoke and youth access to tobacco, calls to the STAKE Act hotline, awareness of the dangers of tobacco use, and beliefs about tobacco industry advertising.

Most racial ethnic groups surveyed reported a high level of exposure to the general-audience media campaign.

- Most **adults** from all ethnic groups remembered seeing one or more ads: 84% of Caucasians, 89% of American Indians, 88% of Pacific Islanders, 86% of African Americans, and 84% of Hispanics.
- Most **youth** remembered seeing one or more ads: 84% of Caucasians, 83% of Pacific Islanders, 82% of Native American Indians, 80% of Hispanics, 77% of Asians, and 61% of African Americans.
- Of opinion leaders, 85% remembered seeing one or more ads.

TABLE 2
PERCENT OF ADULTS AND 10TH-GRADE YOUTH WHO RECALLED GENERAL-AUDIENCE ADS

	YOUTH			ADULTS		
	0 Ads	**1-2 Ads**	**More than 2 Ads**	**0 Ads**	**1-2 Ads**	**More than 2 Ads**
Caucasian	14%	39%	45%	16%	49%	35%
Hispanic	20	46	34	16	47	37
African American	39	40	21	14	47	40
Asian	23	42	35	21	48	32
American Indian	18	38	44	11	57	32
Pacific Islander	17	47	36	12	30	58
Other	n/a	n/a	n/a	10	52	38

In addition to exposure to the general-audience ads, exposure to the Hispanic advertising campaign was high among Spanish-speaking respondents; 72% of respondents reported seeing at least one ad.

Implications and Recommendations

Low funding levels for tobacco-control may hamper its effectiveness.

As noted in the Introduction, the Proposition 99 Health Education account has never, in nine years, received 20% of tax revenues as was mandated in the voter-approved initiative. In addition, given that this baseline evaluation period occurred during the lowest funding period since the beginning of the TCP, results on the number of activities conducted by local communities and statewide media, public exposure to these activities, and community norm changes were likely to be lower than those of previous or subsequent years. Positive findings in this evaluation are remarkable given the funding environment.

The amount of exposure and relative impact of TCS programs may increase in subsequent years with the restoration of earlier funding levels or even the intended 20% of Proposition 99 revenues. Higher levels of funding should result in more of the program being delivered, and should raise the overall state activity rate, which is at a fairly low level currently (4.6 activities per 10,000 population).

Higher levels of funding will likely lead to an influx of new staff needing training in tobacco control, priority areas, community mobilization, and local programs evaluation.

During the last several years, due to funding cuts, it is likely that experienced tobacco control staff have left the tobacco control field. With renewed funding levels, it is likely that new inexperienced staff will be hired. This suggests that there may be a need to assess local staff capabilities and provide training and ongoing technical assistance.

Efforts need to continue to be devoted to ethnic and language-specific groups in conjunction with general public programs and media.

Community programs and activities appear to have done a good job with regard to their focus on ethnic and language-specific groups. More than one-third of local program efforts and a third of media funds focused on delivery of programs and information to non-Caucasian and non-English speaking groups. This is in addition to programs and media designed for the multi-ethnic general audience that constitutes the bulk of California's population. Tobacco control should continue to direct specific programs to groups that are targeted by the tobacco industry and to groups that have high rates of addiction to nicotine, such as some immigrant Asian populations.

Local program efforts need to continue to be devoted to factors that influence youth prevalence.

One of the main goals of the tobacco control program is to prevent and reduce tobacco use among children. Youth-only programs accounted for 25% of all TCS locally-funded activities. Another 24% of activities were directed to the general public, including youth, and substantial amounts of activity were directed to adults who have positions that give them the opportunity to influence youth's beliefs and actions (i.e., lawmakers, law enforcement, tobacco-selling merchants). In addition, schools provided anti-tobacco education for youth. Given that youth smoking rates are not decreasing,[16] TCS may want to continue to focus on programs that will reduce the allure and availability of tobacco products to youth.

Overall, only a small percentage of 10th-grade youth (15% statewide) were aware of local nonschool tobacco control programs. Youth in high-density counties, especially, were unaware of specific local programs. The opposite was true for youth in low-density counties, where there was high awareness. TCS needs to consider the best ways to reach youth in different locations.

The statewide general-audience campaign is a powerful tool for reaching Californians.

Placement of ads in general-audience channels (i.e., prime time television) is an efficient way of reaching most Californians. The general-audience media advertising campaign achieved broad reach among all ethnic groups and among youth. These data indicate that ethnic-specific media supplement the general audience campaign, since ethnic audiences see both general and ethnic-specific ads. Broad exposure to the general-audience campaign points to the importance of ensuring ethnic and language-specific and general campaigns work together. Ethnic media can be effective in disseminating tailored, culturally relevant ads to reinforce the themes of the general-audience campaign.

It will be important to choose effective intervention strategies with the largest reach, for example, using the media to educate and mobilize the population. Choosing interventions with a wide reach, rather than interventions that target individuals or small groups, may be more important in high-density counties where the widespread dissemination of information through individuals is more difficult.

Clear media messages are needed.

Advertisements with compelling visuals and dramatic treatments, such as the historic spot "Boardroom", had high recall and accuracy. Clear messages and stimulating images are an important combination to improve exposure and accuracy of recall, especially for youth whose accuracy was lower than that of adults. Continued funding and effort is needed to help ensure ads are novel and sufficiently creative to rise above the clutter of other mass media.

Accuracy of recall was highest for television. The themes in outdoor advertisements were recalled more accurately than those in radio ads, making accurate recall lowest for radio ads. Youth were especially prone to not knowing the correct theme of radio ads. Making themes more explicit and easier to understand is necessary.

Accurate recall was lower for youth access-focused ads than for ads concentrating on other priority areas. More work needs to be done to make youth-access radio messages clearer and more salient. Respondents were less likely to correctly identify the themes of the youth access-focused radio ads, indicating this message may be confusing or complicated. However, the billboard ad, telling people to call the STAKE Act 1-800 number, was easy to understand and appears to have had more positive effects. There is a need to develop comprehensible, attractive images and themes to capture audience attention.

ETS messages were clear and comprehensible for almost all audience members. One reason for this may be the compelling nature of the ETS story and its easy adaptability to dramatic visuals (i.e., a man mourning the loss of his wife, smoke coming out of pregnant women, smoke wafting through the bars of a child's crib). In addition, there have been numerous ETS-focused ads disseminated in California for many years, whereas other themes are less familiar.

B. Environmental Tobacco Smoke (ETS)

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B. Environmental Tobacco Smoke (ETS)

Introduction

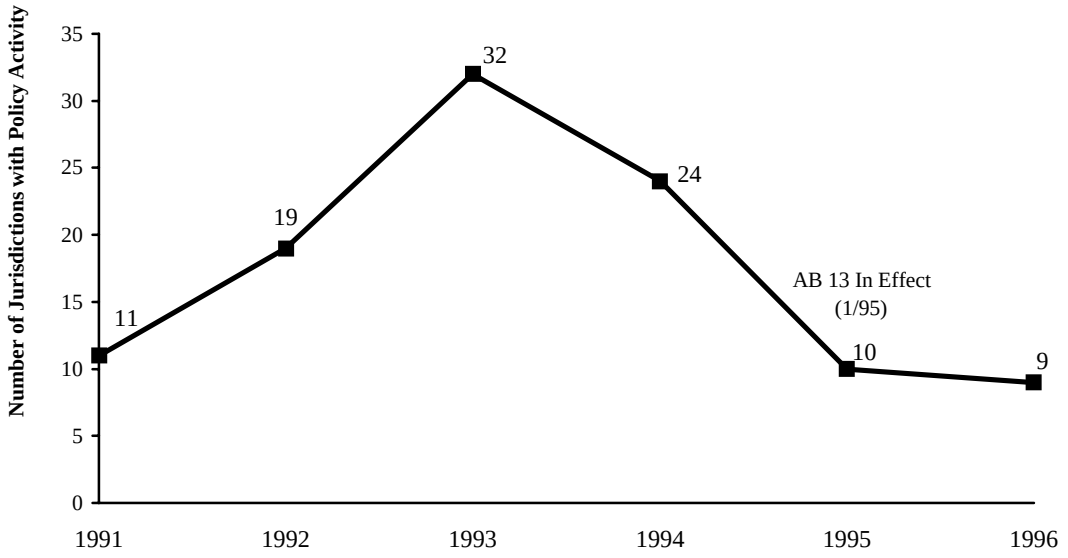
The main objectives for this section of the report are to:

1. Describe the status of local ETS policy;
2. Describe the level of awareness and perceived importance of exposure to ETS for adults, youth, and community opinion leaders;
3. Describe the level of enforcement and compliance with ETS public policies as perceived by adults and policy enforcement agencies;
4. Describe the level of support for additional ETS policies; and
5. Examine the relationship between delivery of community and media tobacco control programs and exposure to those programs, and attitudes, beliefs, behaviors, policy enactment, and enforcement in the area of exposure to ETS.

Data sources used in these analyses included progress report data from TCS-funded agencies; written project director surveys; content analysis of the statewide media campaign; adult, youth, and opinion leader surveys; enforcement agency staff surveys; local policy data; and California Tobacco Surveys 1993-1995.

California residents have been less exposed to ETS since the passage of local ordinances in the early 1990s and the passage of Assembly Bill 13 (AB 13)—the state law that prohibits smoking in most indoor public areas and workplaces. Since the passage of AB 13, the impetus for ETS policies governing restaurants and workplaces has diminished, and thereafter, the number of new or amended local ETS policies dropped significantly. In 1996, only two new policies were passed that were more strict than those at the state level. The other seven policy actions either brought local policies into compliance with AB 13 or rescinded a local ETS policy (Figure 13).

FIGURE 13
Local ETS Policy Activity
(1991-95)



Source: Americans for Non-Smokers Rights

Despite a low level of policy activity on ETS due to the passage of AB 13 in 1994, 52% of the 288 jurisdictions in the evaluation counties have at least one ETS policy that is more strict than ETS policies at the state level.

The types of local ETS policies that are more strict than those at the state level include: complete ban on smoking in the workplace regardless of the number of employees (40% of jurisdictions); ban on separately ventilated smoking rooms at workplaces (16%); ban on smoking in bingo parlors (13%); ban on smoking in bars attached to restaurants (5%) and freestanding bars (4%).

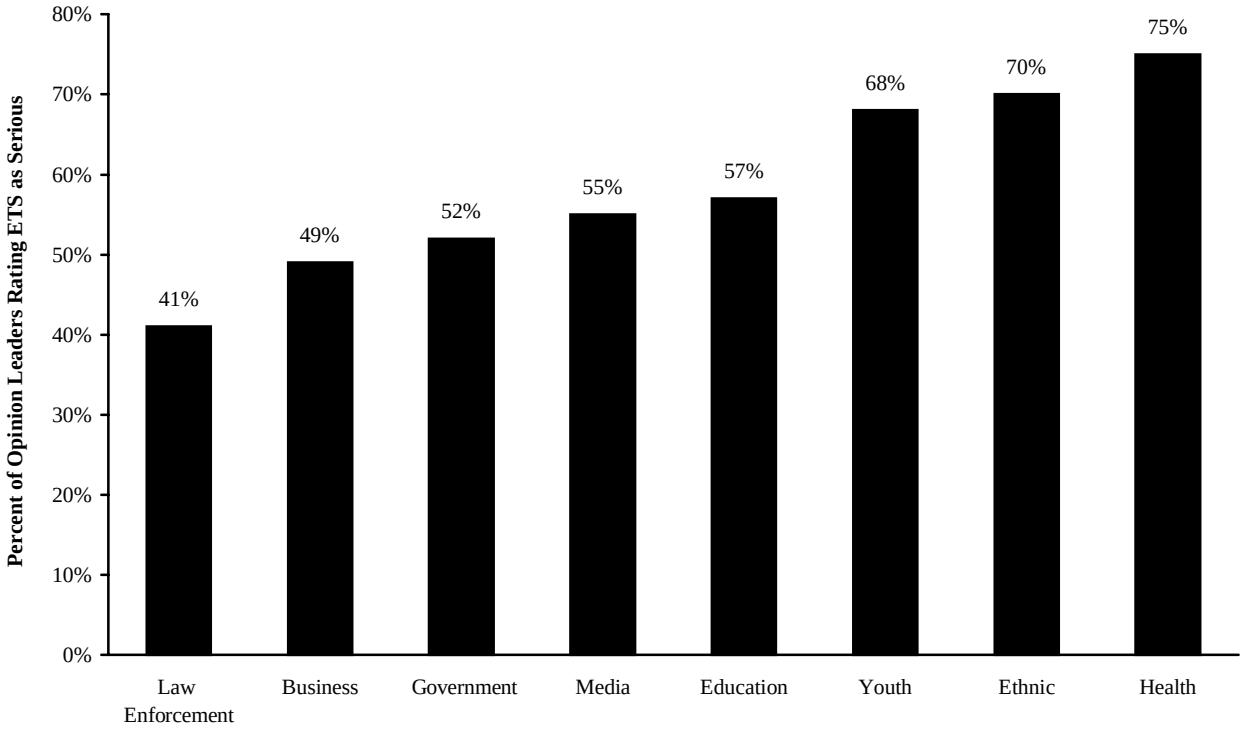
During 1996, local tobacco control programs continued their work in local policy action and recruited coalition members and volunteers to *initiate* more stringent local ETS policies, including those that would restrict or ban smoking in bars (14%), general public areas (i.e., public parks or within a certain distance of a building entrance) (14%), bingo parlors (10%), and in all workplaces (5%).

Awareness of and Perceived Importance of Exposure to ETS

In 1996, community awareness of the dangers of ETS remained extremely high with 89% of adults and 97% of 10th-grade youth believing that breathing secondhand smoke is bad for your health.

Awareness of the dangers of secondhand smoke may have peaked, since the percent of adults who believe ETS is bad for health increased only slightly from 1994 to 1996 (from 86% to 89%) and not at all from 1995 (89%). When asked about how *serious* a problem it is that nonsmokers breathe in secondhand smoke, 60% of 10th-grade youth and 55% of opinion leaders believed it to be a serious problem. However, some types of opinion leaders—such as those in law enforcement, business, government, media, and education—did not believe ETS to be very serious, and they should be targeted with ETS messages to increase their level of perceived importance for exposure to ETS (Figure 14).

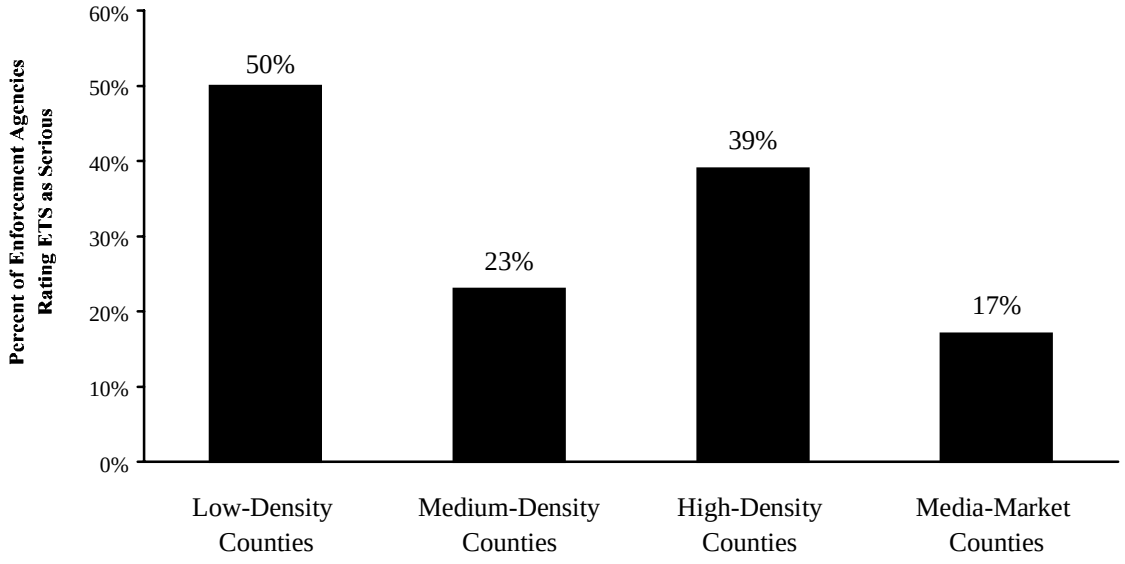
FIGURE 14
Percent of Opinion Leaders Rating ETS as a Serious Problem in Their Community, by Agency Type (1996)



- ***Only 28% of designated AB 13 enforcement agencies thought that exposure to ETS in public places was a "very serious" or "serious" problem compared to other problems in their community.***

AB 13 enforcement agencies also did not rate enforcing polices to ban smoking in indoor public areas as very important as compared to other policies they enforce. One-half of enforcement agencies in low-density counties rated ETS as a serious problem, and they rated enforcing ETS policies as more important than agencies in other types of counties, suggesting that ETS issues may be more salient in low-density counties (Figure 15).

FIGURE 15
Percent of Enforcement Agencies Rating ETS as a Serious Problem Compared to *Other* Problems in Their Community (1996)

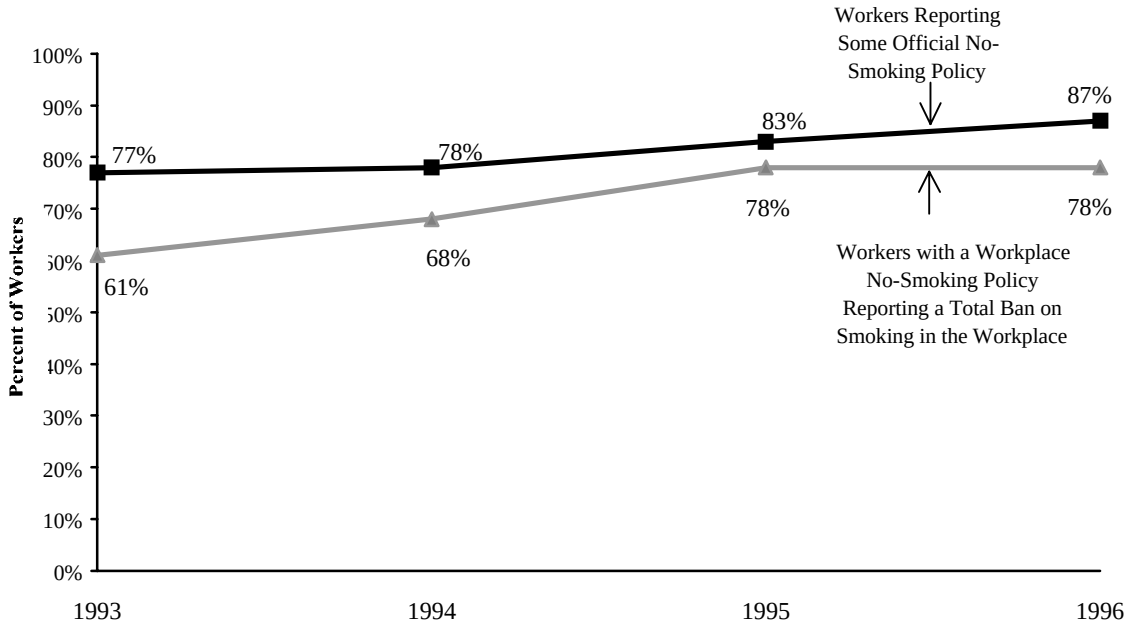


The majority of workers (87%) reported there is an official no-smoking policy at their workplace.

This represents a 10% increase over the percent of workplace policies reported three years ago (Figure 16).

- Among workers who reported the existence of an official no-smoking policy, 78% of workers stated that smoking is not allowed anywhere in indoor workplaces. This rate has been increasing over the past three years.
- Twenty-two percent of workers stated that smoking was allowed in some places.

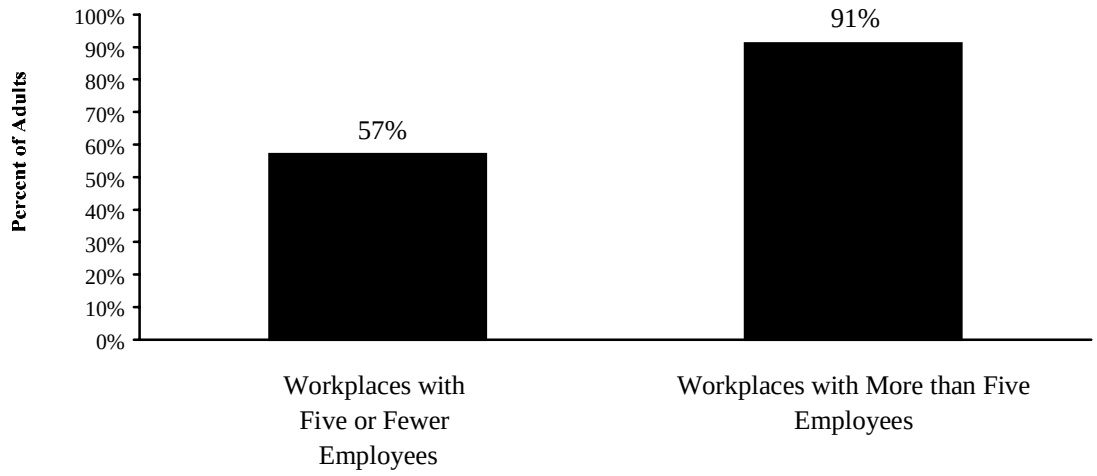
FIGURE 16
Percent of Workers Reporting Workplace No-Smoking Policies (1993-96)



Source: 1993, 1994, 1995 data are from the California Adult Tobacco Survey (CATS); 1996 data are from the Independent Evaluation.

While a small percentage of businesses with five or fewer employees are exempt from AB 13, only 57% of adults at very small workplaces reported the existence of an official workplace no-smoking policy as compared to 91% of those at workplaces with more than five employees (Figure 17).*

FIGURE 17
Percent of Adults Reporting the Existence of Some Workplace No-Smoking Policy (1996)

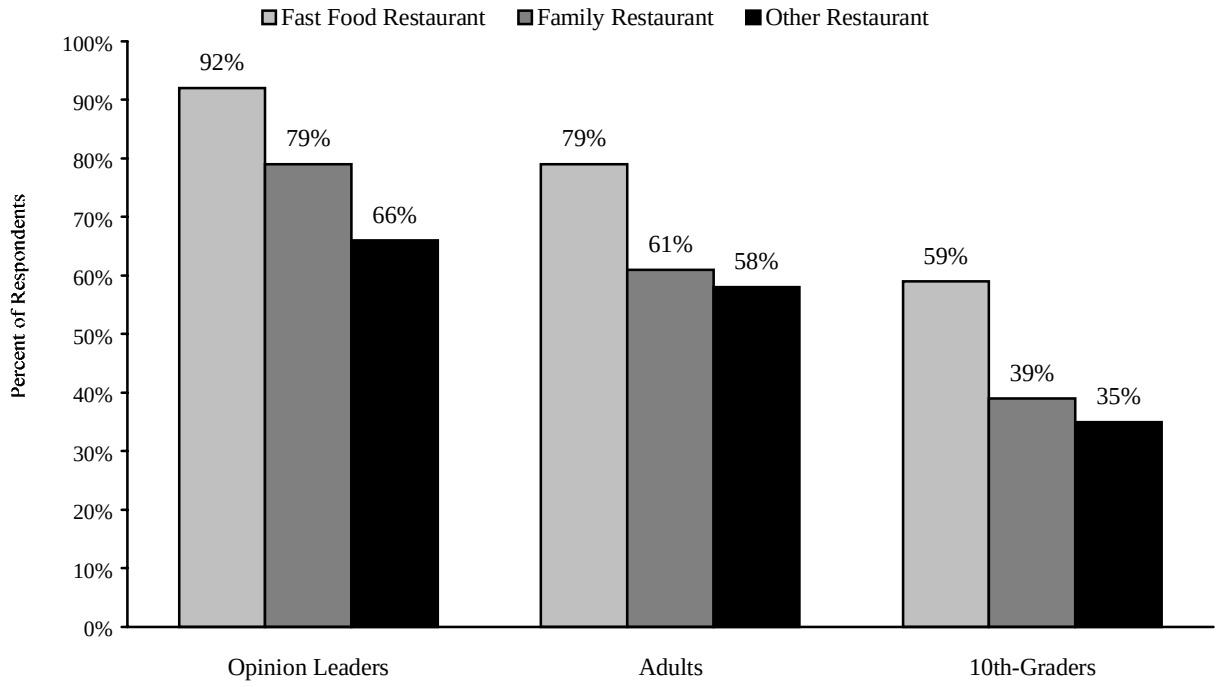


*Comparisons with CATS data are not possible because the CATS question is asked of workplaces with fewer than 50 employees, while the Independent Evaluation question asked about five or fewer employees.

The community is not fully aware that public policies completely restrict smoking in most restaurants. However, the community widely believes that there are at least partial restrictions on smoking in restaurants.

- Ninety percent of adults, nearly 100% of opinion leaders, and 65% of 10th-graders believed that there are either partial or complete restrictions on smoking in restaurants.
- Awareness of complete restrictions on smoking was highest for fast food restaurants among opinion leaders, adults, and 10th-graders (Figure 18).
- Opinion leaders were more aware of smoking policies than adults or 10th-graders, but even opinion leaders were not fully aware of the extent of AB 13 restrictions.

FIGURE 18
Percent of Respondents Aware of
Complete Restrictions on Smoking in Restaurants (1996)



Community Program Effects

Community tobacco control programs that focused on enforcing AB 13 showed a positive relationship to people's awareness of ETS policies.

Adults who were exposed to an AB 13 community enforcement program were more likely than those not exposed to be aware of no-smoking policies in restaurants.

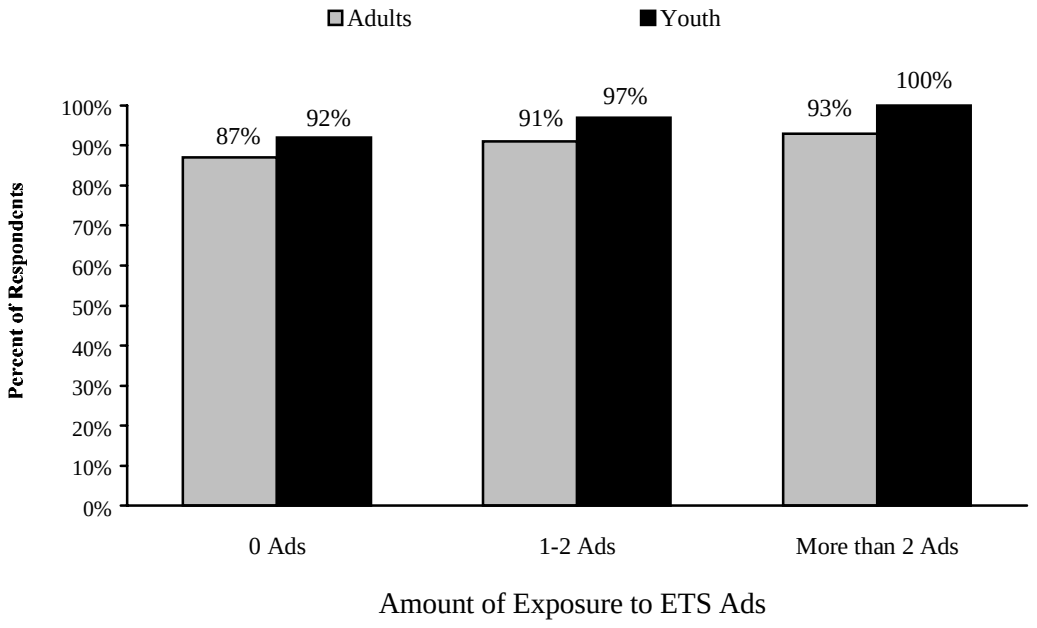
Media Program Effects

Statewide ads increased adults' and 10th-graders' already high level of awareness of the dangers of secondhand smoke and ETS policies (Figure 19).

Adults and 10th-graders who remembered more ETS-focused advertisements were more likely to believe that breathing in secondhand smoke is bad for your health and to be aware of no-smoking polices in restaurants and workplaces.

Tenth-graders who reported exposure to ETS-focused ads were more likely to report that they do not like being around people who are smoking.

FIGURE 19
Percent of Adults and 10th-Grade Youth Who Believed Exposure to ETS is a Health Risk, by Exposure to ETS Ads



Perceived Enforcement of and Perceived Compliance with Public Policies

AB 13 and other local ETS policies seem to be working, but not perfectly.

Most adults (88%) believed that policies to ban smoking in restaurants, cafeterias, and indoor workplaces are being enforced. Enforcement agencies also reported a belief that compliance is high in restaurants and workplaces. However, 22% of working adults reported that smokers break the existing smoking rules at their workplaces.

- ***In counties with more stringent ETS policies, there was higher perceived compliance and enforcement.***

Counties with local ETS policies more stringent than those at the state level were more likely to have fewer ETS program activities and less formal enforcement, but higher levels of perceived compliance among adults and enforcement agency officials.* This suggests that more stringent policies may lessen the need for formal enforcement and allow TCS-funded programs to concentrate their limited resources in other areas, such as youth access or countering pro-tobacco influences.

What is Being Done to Enforce ETS Policies?

- ***Designated AB 13 enforcement agency staff frequently engaged in formal enforcement-related activities during the prior year.***

Eighty-two percent of enforcement agencies responded to inquiries, 78% to complaints, and 59% issued warnings. However, due to high compliance with ETS policies, few enforcement agencies reported that they issued citations (11%) or fines (8%). Agencies in low-density counties were more likely to respond to inquiries and complaints, and issue warnings related to AB 13 enforcement followed by high-density, medium-density, and media-market counties.

- ***Common barriers to enforcement of ETS policies include: limited staff, low priority in the community, lack of money, and lack of support from community leaders.***

Community Program Effects

- ***Analyses indicated that having more ETS program activities was associated with more enforcement activity.***

Among the focal counties, a higher number of ETS program activities was associated with higher reported frequencies of responding to inquiries ($r = .62$) and complaints ($r = .51$), and issuing warnings ($r = .47$) related to AB 13.*

* One outlier, a low-density county, was excluded from these analyses.

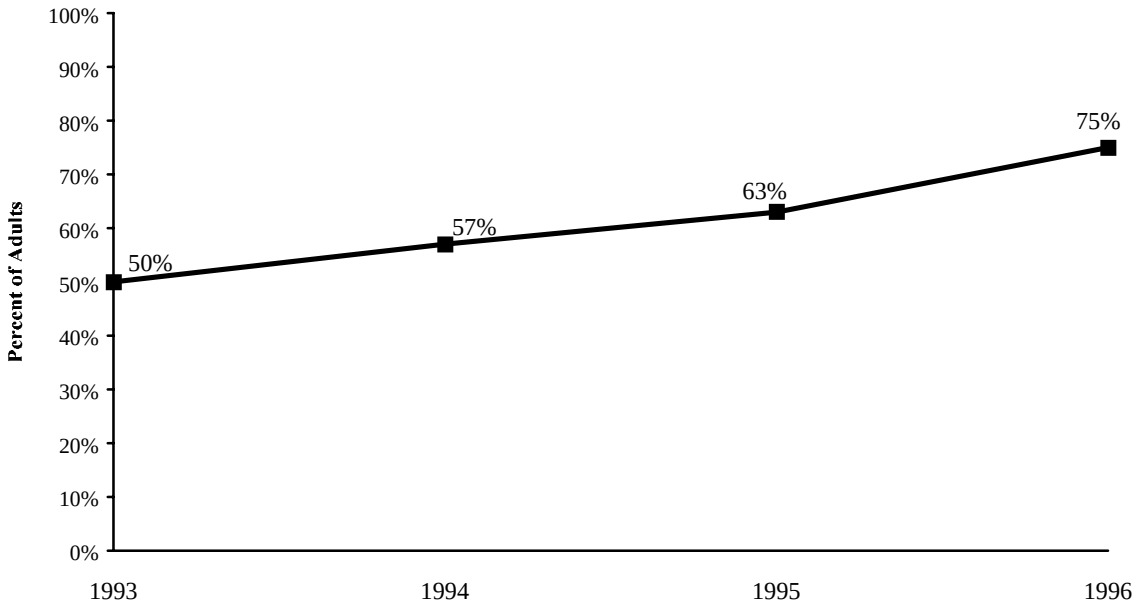
Personal Enforcement: Smoke Free Homes, Cars, and Personal Space

Three-quarters of the local tobacco control programs reported that they had worked to increase the number of families with smoke-free homes and vehicles in 1996. Over the years, these efforts appear to have paid off.

The public is transferring lessons learned about exposure to secondhand smoke to smoking policies in their homes and cars.

- In 1996, 75% of adults reported that smoking is not allowed anywhere in their homes, which is 25% higher than reported three years ago (Figure 20).
- Respondents from low-density counties reported the lowest percentage of complete bans on smoking in their homes (69%).
- Sixty-four percent of adults reported that smoking is never allowed in their family cars.

FIGURE 20
Percent of Adults Who Reported Smoking Is Not Allowed in Their Homes (1994-96)

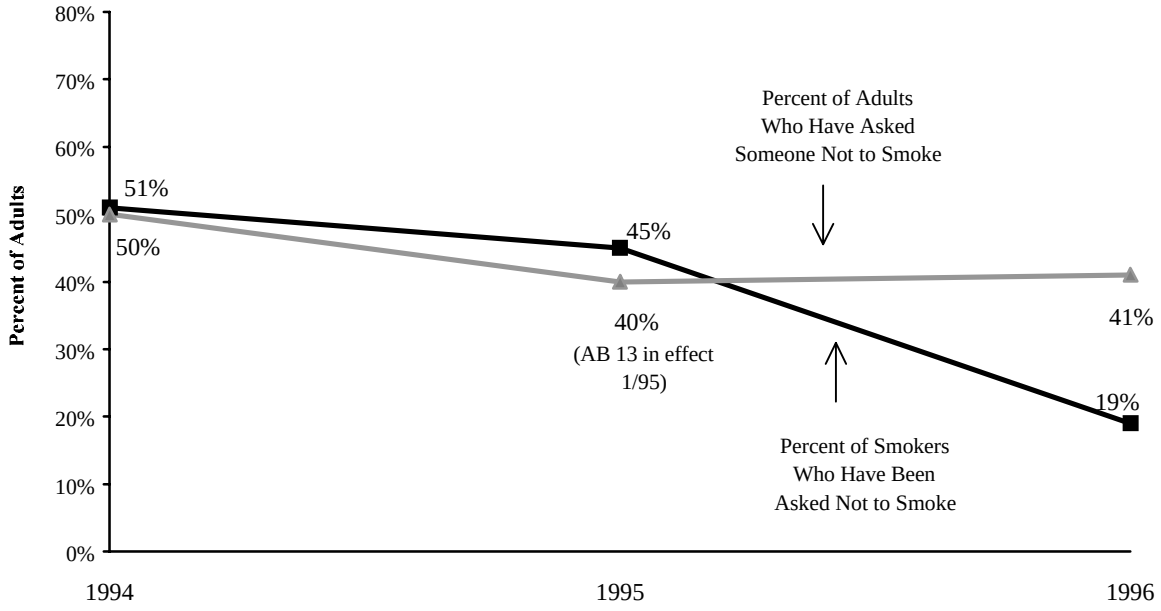


Source: 1993, 1994, 1995 data are from the California Adult Tobacco Survey (CATS); 1996 data are from the Independent Evaluation using identical questions.

- ***A substantial number of adults (41%), 10th-grade youth (45%), and opinion leaders (48%) have asked someone not to smoke around them during the previous year.***

While the adult percentage was lower than that reported two years ago (Figure 21), it may reflect less of a need to ask someone not to smoke due to enactment of local and statewide policies (e.g., AB 13) restricting where smoking can occur, less smoking in public places, or a lower smoking rate.

FIGURE 21
Percent of Adults Asking Someone Not to Smoke and Smokers Being Asked Not to Smoke (1994-96)



Source: 1994, 1995 data are from the California Adult Tobacco Survey (CATS); 1996 data are from the Independent Evaluation using identical questions.

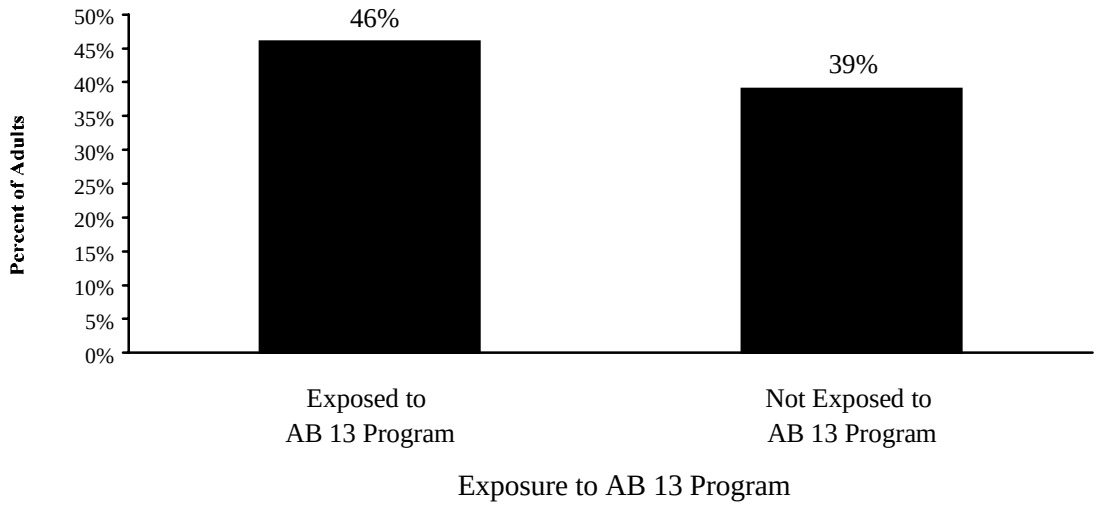
Few adult smokers (19%) and 10th-grade youth smokers (11%) reported that they had been asked not to smoke by others in the previous 12 months. Again, the adult percentage was lower than in the previous two years (Figure 21).

Community Program Effects

Community tobacco control programs that focused on AB 13 showed a positive relationship to people's personal behavior.

People who were exposed to AB 13-focused programs were more likely than people not exposed to ask another person not to smoke around them (Figure 22). Given that counties that implemented enforcement of AB 13 programs focused on public indoor policies, it was not reasonable to look at the effect of these programs on private indoor policies, such as those in homes and cars.

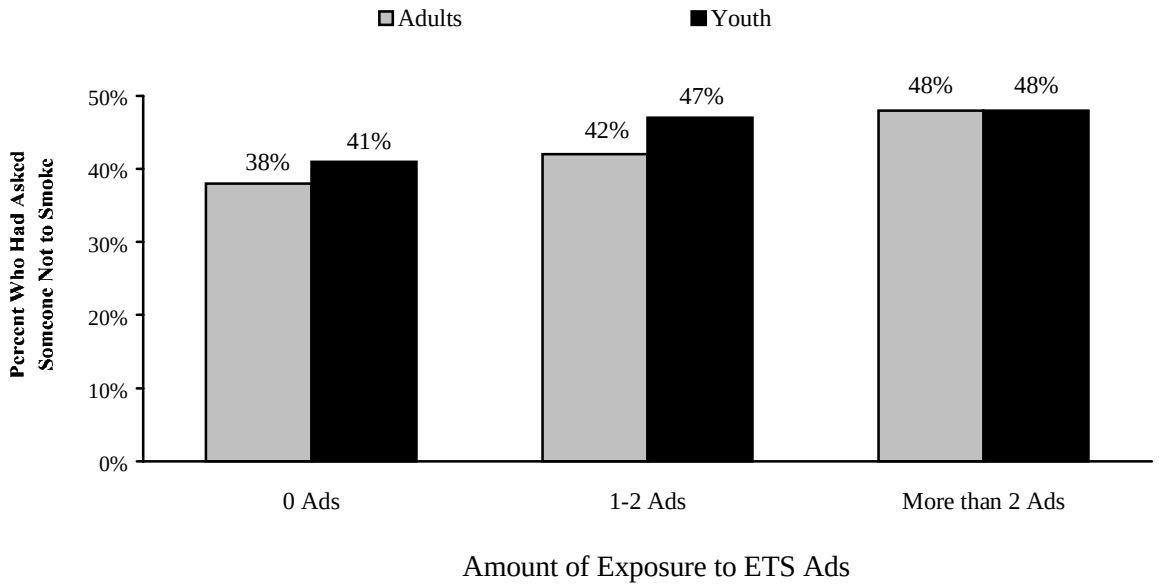
FIGURE 22
Percent of Adults Who Had Asked Someone Not to Smoke around Them, by Exposure to AB 13 Program (1996)



Media Program Effects

- ***Adults and 10th-graders were more likely to have asked another person to not smoke around them if they had been exposed to the ETS-focused advertisements (Figure 23).***

FIGURE 23
Percent of Adults and 10th-graders Who Recalled ETS Ads Who Had Asked Someone to Not Smoke, by Exposure to ETS Ads (1996)



- ***Adults and opinion leaders who were exposed to ETS-focused advertisements were more likely to have no-smoking policies in their homes.***

Adults' recall of ETS-focus ads did not affect whether or not they had no-smoking rules in family cars (a policy not emphasized in ads). Tenth-graders who reported exposure to ETS-focused ads were more likely to report lower exposure to ETS in the home.

Support for Other Policies to Reduce Exposure to ETS

- ***The public appears to appreciate the smoke-free environment of restaurants and workplaces and to support policies to extend a smoke-free environment to other public areas.***

  - Of adults who go to bars, 75% preferred them to be smoke free. Support for smoke-free bars was lower in low-density counties (68%) than other types of counties (range of 73%-78%).
  - Overall, 57% of adults and 63% of opinion leaders agreed that smoking in outdoor public places should be restricted. However, support for a ban on smoking in outdoor public places appears to be weaker in low-density counties where smoking rates tend to be higher and attitudes toward government intervention tend to be more negative.

Implications and Recommendations

Education on ETS and ETS policies is still needed.

Most California adults and 10th-grade youth are quite aware that second hand smoke disables and kills, and a majority of opinion leaders and 10th-grade youth believe that environmental tobacco smoke is a serious problem. Overall, Californians know they live in an environment that has much lower ETS than most other locations in the United States. This may contribute to the finding that in some areas and among some groups ETS may not be perceived as a serious problem compared with other problems facing communities. The challenge is not only to keep support and concern for ETS high, but also to look for other ways to decrease exposure to tobacco smoke (e.g. increase compliance with existing smoke-free policies and encourage the passage of new policies such as those in private homes and cars).

The statewide general-audience advertising campaign could be refined to focus on expanding the number and nature of smoke-free environments. The general-audience media advertising campaign aired ads that emphasized the short- and long-term health effects associated with breathing in secondhand smoke, and people appeared to learn these specific messages. Community members and opinion leaders who recalled more of the ETS-focused ads were more likely to believe that breathing in secondhand smoke was dangerous to one's health, reported more home-smoking bans, and were more likely to ask someone not to smoke around them. Community members do not, however, appear to transfer lessons learned in ETS-focused ads to other ETS areas: This study did not find an association between exposure to ETS-focused ads and reports of having a ban on smoking in cars, support for outdoor smoking bans, or support for smoke-free bars. Audience members seem to understand messages in a literal fashion, and advertisements should portray clear lessons and describe distinct actions to be taken to restrict exposure to ETS in additional areas. Media can be used to enhance informal or self-enforcing activities, rather than put the burden on local tobacco control programs to achieve 100% compliance through formal enforcement.

While a majority of Californians believe there are restrictions on smoking in restaurants, there is still a sizable portion of the population that do not realize the full extent of smoking restrictions in restaurants. This is true for 10th-grade youth especially. While most workers in workplaces with five or fewer employees should be covered by a no-smoking policy, 43% did not report the existence of a workplace policy. Findings indicate that it may be necessary to continue to educate the public more about the full provisions of AB 13. There is a need to drive the point home that "no smoking" in public places is the norm.

A large majority of adults would like to see no-smoking policies in bars as well as restaurants and other indoor public places. Local tobacco control programs need to continue to create support for the state ban on smoking in bars and work with local bars to prepare them for the ban. Public education about its implications, and its importance for business and health continues to be needed. Moreover, media efforts need to clearly communicate that there is broad-based consensus for the ban in order to solidify support. This is an important area for local tobacco control programs to focus their efforts.

There is still a need for local policy action.

The number of LLAs that work to initiate policies at the local level is low. TCS may want to consider the efficacy of initiating policies in areas not currently being pursued at the state level, especially areas that appear to garner strong support, such as restrictions on smoking in outdoor public areas.

It appears that more stringent local policies may work to increase compliance and perceived enforcement, even when formal enforcement is low. More stringent policies *may* change the perceived social norm about what is acceptable or not and, thus, serve to reduce ETS through self-enforcement or personal enforcement activities. Passing more stringent policies *might* be a way to reduce ETS exposure without costly formal enforcement.

Extend efforts to increase home and car no-smoking policies.

While the majority of the population have policies about smoking for their homes and cars, there is still room to increase the number. Local tobacco control programs and the statewide media should continue to remain active in this area. The biggest need is to increase private no-smoking policies for cars. The number of families reporting a complete ban on smoking inside their homes has increased over the past few years; with continued effort, it is likely that the percentage of families with strong private ETS policies would continue to increase. A cost-efficient way to increase home and car no-smoking policies is to use mass media to present the notion that smoking in public places and in cars and homes is not the norm. Media messages must be explicit and clearly communicate the desired behavior in order to have an impact. Use of compelling visuals and dramatic themes will help audience members learn and practice advocacy behaviors.

Low-density counties tended to have fewer families with a home no-smoking policy, and they also had lower support for additional policies to reduce exposure to ETS than medium-density, high-density, and media-market counties. Given higher rates of smoking and greater exposure to ETS, it appears that rural communities are at greater risk for tobacco-related disease and require special intervention efforts.

Reinforce public sentiment to reduce exposure to ETS even more.

The majority of people support a restriction on smoking in outdoor public places, with only low-density counties indicating less than 50% support. It seems reasonable for TCS-funded programs to advocate for broader protection from ETS in public places as a strategy for preventing secondhand smoking-related health problems. Perhaps efforts should begin first in the counties most likely to be receptive to restrictions.

Two-thirds of enforcement agencies stated that a barrier to more stringent enforcement of ETS policies was that it was not a priority for the community. In addition, more than half reported that lack of support from community leaders was a barrier. Tobacco control might consider publicizing the public's support for strict ETS enforcement as a way of demonstrating to enforcement agencies that ETS is a high priority.

Counties with more local ETS activities reported more enforcement of ETS policies. Local media can play a crucial role in publicizing local activities and raising the importance of ETS restrictions in the minds of enforcement agency personnel and other key policy-makers. Moreover, opinion leaders from law enforcement, business, government, and the media rated ETS as a less serious community problem than other opinion leaders. Increased outreach to media professionals is critical to increase coverage of ETS-related issues and activities. Such enhanced media attention could raise the importance of reducing exposure to ETS among community members as well as among law enforcement and other influential leaders.

Collaboration with enforcement agencies must continue.

Most enforcement agency representatives downplayed the importance of ETS exposure issues compared to other community problems. This belief has implications for the assertive enforcement of tobacco-related policies in communities. TCS-funded programs should collaborate more frequently with enforcement agencies to increase their commitment to assuring complete compliance with current ETS laws.

Enforcement agency staff in low-density counties were more likely than those in high-density counties to believe that exposure to ETS is an important problem, to report lower levels of compliance, and to report higher levels of AB 13 enforcement. Since enforcement agencies and LLAs in rural counties face more opposition from the general public, probably due to higher rates of smoking and more negative attitudes toward government intervention, it may be that more resources must be allocated for ETS activities in these areas. People in rural areas may respond more positively to messages that focus on self-reliance to encourage more informal, personal enforcement and less formal enforcement by public agencies.

Training both local tobacco control program staff and enforcement agency staff on the specifics of various local, state, and national ETS policies and the implications and collaborative opportunities for enforcement will be extremely important.

C. Youth Access to Tobacco

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Kurt Ribisl, Ph.D.

C. Youth Access to Tobacco

Introduction

The main objectives for this section of the report are to:

1. Describe the status of local youth access policy;
2. Describe the level of awareness and perceived importance of youth access issues for adults, youth, and community opinion leaders;
3. Describe the level of enforcement and compliance with youth access public policies as perceived by adults, policy enforcement agencies, youth, and opinion leaders;
4. Describe the extent of the problem of youth access;
5. Describe what is being done to enforce youth access laws;
6. Describe the level of support for additional youth access policies; and
7. Examine the relationship between delivery of community and media tobacco control programs and exposure to those programs, and attitudes, beliefs, behaviors, policy enactment, and enforcement in the area of youth access.

Data sources used in these analyses included progress report data from TCS-funded agencies; written project director surveys; content analysis of the statewide media campaign; adult, youth, and opinion leader surveys; enforcement agency staff surveys; local policy data; and STAKE Act materials distribution and 800-number calls data.

Youth access to tobacco products is a serious problem since 90% of smokers begin smoking before age 18. Relatively few people begin smoking after age 18, so stopping youth access is believed to be an important preventive step to reducing the number of new smokers and related negative health effects.

California state law (Penal Code 308) regulates youth access by making it illegal both for merchants to sell tobacco to youth under age 18 and for youth under 18 to buy or possess tobacco. The law also requires merchants to check an ID for anyone who looks less than 18 and restricts the location of cigarette vending machines to places where youth do not have access.

Local tobacco control programs have worked to increase the stringency of youth access laws and to increase compliance and enforcement of youth access laws. Overall, 17% of local jurisdictions have youth access policies that are more strict than those at the state level (range of 1 to 3 per jurisdiction), including banning tobacco sales from all vending machines, prohibiting sampling of tobacco products under all conditions, and eliminating self-service tobacco displays.

During 1995-96, 12 local policies more stringent than those at the state level were passed to restrict youth access to tobacco in the 288 jurisdictions in the 18 evaluation counties; roughly 25% of LLAs recruited coalition members/volunteers to work on initiating local youth access policies more stringent than those at the state level.

During 1996, LLA project directors in the 18 evaluation counties reported engaging in a variety of activities to decrease youth access to tobacco, including:

- Promoting the STAKE Act (87%).
- Educating merchants about not selling tobacco to youth (78%).
- Conducting undercover youth-purchase surveys at retail outlets (67%).
- Encouraging pharmacies, merchants, or distributors to decrease or eliminate the sale of tobacco (68%).
- Creating educational and media campaigns that address the social sources of tobacco (71%).

Awareness of and Perceived Importance of Youth Access Issues

California adults were united in their belief that youth should not be allowed to buy cigarettes; most 10th-grade youth agreed also.

- Ninety-two percent of adults, 72% of 10th-grade youth, and 99% of opinion leaders believed that a person should be 18 years or older to buy cigarettes. Furthermore, a third of adults and 10th-grade youth, and 42% of opinion leaders believed a person should be *at least 21 years old* to buy cigarettes.
- Most adults (86%), 10th-grade youth (91%), and opinion leaders (95%) were aware that a person must be at least 18 years old to legally purchase tobacco products.
- Fifty-four percent of 10th-grade youth and 75% of opinion leaders also believed that youth access to tobacco products is a serious problem.

Because the majority of opinion leaders, adults, and 10th-grade youth are aware of and support the minimum age-of-sale law, and because they believe youth access is a serious problem, this suggests that there is widespread support for the current laws and for tobacco control efforts to reduce youth access to tobacco products.

The community was relatively unaware of community programs and activities that seek to increase compliance with youth access laws, but most community members did recall tobacco industry signs such as "It's the Law" or "We Card."

Unlike the high level of awareness of ETS policies for restaurants and workplaces, only:

- Forty percent of adults, 24% of 10th-grade youth, and 53% of opinion leaders believed that their community conducts police "stings" to catch merchants who sell tobacco to underage youth.
- Forty-three percent of adults and 44% of opinion leaders were aware of TCS-developed STAKE Act signs and ads to call 1-800-5-ASK-4-ID to report someone selling cigarettes to youth.

However, adults (66%) and opinion leaders (85%) were quite aware of the tobacco industry signs saying "It's the Law" or "We Card."

Half of the adults in media-market counties (50%) reported the presence of STAKE Act signs and advertisements in their communities as compared to 44% in high-density counties, 43% in medium-density, and 35% in low-density counties.

Community and Media Program Effects

Exposure to community and media programs was associated with greater awareness of youth access issues.

Many community tobacco control programs focused on the STAKE Act "Merchant Education" program to stop stores from selling tobacco to youth. Adults exposed to a local community program were more likely than adults not exposed to the program to:

- Believe that youth should be older to purchase cigarettes;
- Believe that police "stings" were conducted in their community; and
- Report seeing signs and advertisements telling people to call 1-800-5-ASK-4-ID.

The statewide media campaign aired ads that encouraged people to take personal action to reduce youth access to tobacco. Adult, opinion leaders, and youth exposed to youth access general-audience advertisements were more likely to:

- Believe that police "stings" were conducted in their community; and
- Report seeing signs and advertisements telling people to call 1-800-5-ASK-4-ID.

In addition, youth exposed to these messages were more likely to:

- Think youth access to tobacco was a serious problem in their community; and
- Know the minimum purchase-age for youth to be able to buy tobacco products legally.

Perceived Enforcement of and Perceived Compliance with Public Policies

Perceptions about whether youth have access to tobacco varied widely depending on who was asked. Adults and opinion leaders believed access is limited; youth reported ease in obtaining tobacco.

Most adults (72%) and opinion leaders (79%) believed that policies to keep kids from buying cigarettes or chewing tobacco are being enforced within their community. In addition, enforcement agencies reported that enforcement of policies to keep retailers from selling and keeping kids from buying cigarettes was not very important as compared to other policies they must enforce (mean score of 3.8 out of 7.0). However, 90% of 10th-grade youth reported that it is easy to get cigarettes and 71% of youth who tried to purchase cigarettes in the last 30 days reported that they were **not** asked to show proof of age. Youth reports about the ease of access to tobacco indicates that enforcement is *not* adequate.

Contrary to people's perception of enforcement, people also generally don't believe that compliance is at a high level. Opinion leaders thought that 43% of stores in their community sell tobacco to youth, youth themselves believed that 41% of stores sell, enforcement agencies thought that 39% sell, and adults thought that 35% sell. The public's perception of the illegal sales rate conflicts with their own judgments that there is widespread enforcement of tobacco-sales-to-minors laws.

In addition, the public's perception of the illegal sales rate overestimates the actual statewide sales rate (29%) determined by CDHS Statewide Youth Purchase Surveys in 1996. Clearly, there is a need to educate the public about compliance and enforcement rates so that they put pressure on law enforcement to conduct Penal Code 308a stings, and enforcement agencies need to designate youth access as a higher priority.

Community Program Effects

Adults exposed to a local program to stop stores from selling tobacco to youth believed more strongly than adults not exposed to the program that policies to keep kids from buying cigarettes are being enforced.

Media Program Effects

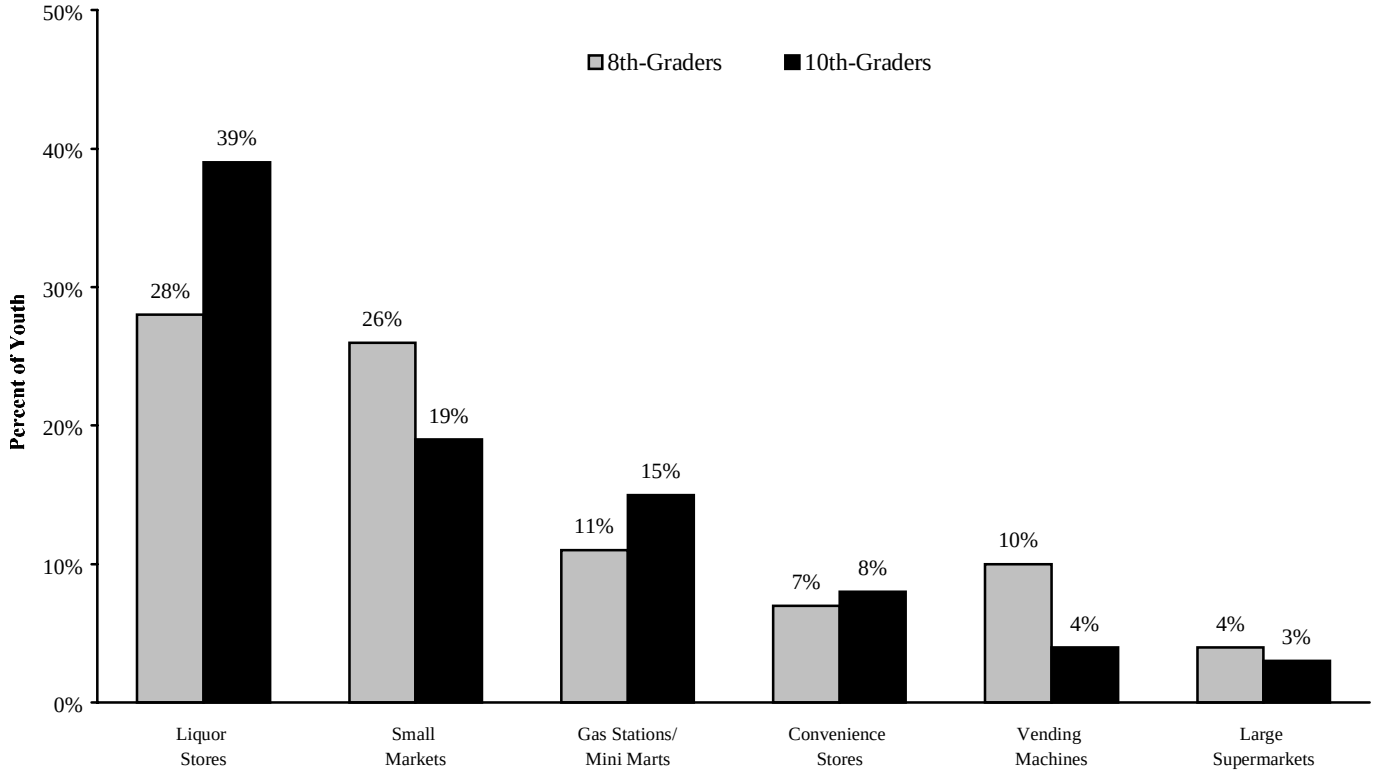
The general-audience advertising campaign did not influence adults' and opinion leaders' beliefs that policies to keep kids from buying cigarettes are being enforced. Youth smokers who reported more exposure to youth access-focused advertisements were no more likely than youth smokers not exposed to the ads to believe that cigarettes would be difficult to get if they wanted some.

How Do Youth Get Access to Tobacco?

Among 10th-grade youth who reported attempting to buy cigarettes, the most common type of store that sold them tobacco were liquor stores and small markets (Figure 24). This finding matches what has been found in reports of various tobacco-purchase surveys.[17]

The numbers are small, but 10% of 8th-graders and 4% of 10th-graders reported they get their cigarettes from vending machines. Vending machines may be an important source of tobacco for entry-level smokers. As youth get older, it becomes easier to buy tobacco from retailers.

FIGURE 24
Retail Sources of Cigarettes
Reported by 8th- and 10th-Grade Students
(1996)

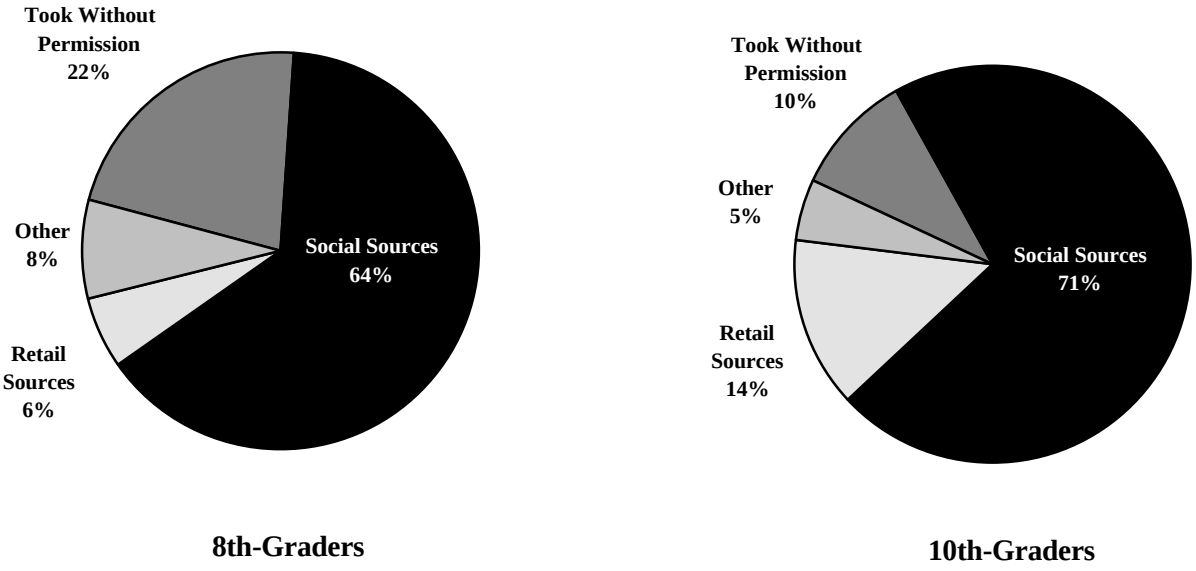


Although youth can get tobacco through direct purchase at retail outlets, social sources of cigarettes are more common among youth than retail sources.

When 8th-grade students who have ever smoked were asked about the source of their most recent cigarettes, 64% of them identified social sources as compared to 6% who identified commercial sources. Similarly, among 10th-graders, 71% of youth identified social sources as compared to 12% of youth who reported obtaining them from retail sources (Figure 25).

- Of the social sources, the most important source for 8th- (51%) and 10th-graders (58%) is a friend who bought or gave them the cigarettes.
- 8th-graders were more likely than 10th-graders to steal cigarettes and less likely to purchase them on their own.
- Few 8th- or 10th-grade ever-smokers reported that family members or other people provided their most recent cigarettes. During the prior year, only 9% of adults reported being asked by a youth to buy or give them tobacco.

FIGURE 25
Most Recent Sources of Cigarettes Reported by 8th- and 10th-Graders Who Have Ever Smoked (1996)



What is Being Done to Enforce Youth Access Laws?

Enforcement agencies overall reported few youth access enforcement activities during the prior year.

Enforcement agencies were asked how often during the prior year they had conducted youth access enforcement activities related to Penal Code 308. On a scale from 1=never to 7=very often, the overall mean score among counties for enforcement activities related to merchants was 2.8; the overall mean score for enforcement activities related to minors was 2.6, showing that enforcement activities overall were not very frequent. Enforcement agencies reported that the three greatest barriers to enforcement of youth access policies were limited staff, inadequate budget, and low community priority.

As part of their efforts to enforce youth access policies, 31% of reporting enforcement agencies conducted undercover tobacco youth purchase stings.

Enforcement agencies also reported a low level of collaboration with other groups to enforce youth access policies. On average, they were most likely to have worked with educational organizations and local government officials, and least likely to have worked with voluntary health organizations, anti-smoking coalitions, and county health departments.

The more local tobacco-control project directors reported collaboration with enforcement agencies, the more enforcement agencies reported enforcement activities related to merchants (r = .54) and enforcement activities related to minors (r = .33).

Personal Enforcement: Calling the STAKE Act Hotline

Analysis of data provided by CDHS regarding calls* to the 1-800-5-ASK-4-ID number during the period January 1996 through December 1996 revealed that:

Media-Market counties had the highest rate of calls to the toll free Ask-4-ID Hotline (5.2 per 10,000 people), followed by high-density (4.7), medium-density (4.3), and low-density counties (2.8).

- On average, the STAKE Act hotline received 1,365 calls per month.
- A total of 12,040 calls were made to the 1-800-5-ASK-4-ID number from telephone numbers in the 18 evaluation counties, with a county average of 4.5 calls per 10,000 people.

According to the Independent Evaluation telephone surveys, less than 1% of adults and 1.5% of opinion leaders reported having called the 1-800-5-ASK-4-ID telephone number in the previous year to report someone who illegally sold tobacco to a youth. Reported calls by opinion leaders, but not adults, varied significantly by type of county. Opinion leaders from low-density counties reported the highest percentage of calls (6%) followed by opinion leaders from medium-density counties (2%), Media-Market counties (1%) and high-density counties (0.4%).

Community Program Effects

At the county level, the number of youth access-related program activities was positively associated with requests for STAKE Act materials from the county (r = .46), but this association was attenuated when requests from TCS-funded groups were excluded from the data set (r = .15).

In counties with more calls to the STAKE Act toll-free number, local enforcement agencies reported more enforcement activities related to merchants (r = .32) and youth (r = .34).

Media Program Effects

Adults who reported more exposure to youth access-focused advertisements were three times more likely to report calling the 1-800-5-ASK-4-ID number than adults not exposed to the ads, although the numbers of calls overall was small.

* These data include calls to: (a) register a complaint regarding illegal sales to minors; (b) request more information about the STAKE Act; and (c) request STAKE Act materials. Calls, such as requests for other types of information, wrong numbers, and prank calls, were not eliminated from the county-aggregated data set provided to us by CDHS.

Support for Other Policies to Restrict Youth Access

- ***To reduce illegal tobacco sales to youth, adults and opinion leaders supported licensing tobacco retailers and fining youth who purchase tobacco; 10th-graders were not as supportive of fines.***

The majority of adults (64%) and opinion leaders (79%) believed illegal sale of tobacco has "some" or "a lot" of influence on getting kids to smoke. Support for licensure and fines has been over 70% for the previous two years.

- ***More than three-quarters of reporting enforcement agency personnel believed that licensure removal for stores caught illegally selling tobacco to minors would be very effective.***

TABLE 3
PERCENT OF RESPONDENTS EXPRESSING SUPPORT FOR POLICIES TO CONTROL ACCESS TO TOBACCO PRODUCTS BY YOUTH (1996)

	Adults	Opinion Leaders	10th-Grade Students
License Tobacco Retailers	77%	70%	n/a
Youth Tobacco Buyers Should Pay Fines if Caught	78%	73%	55%
Strongly Enforce Youth Access Laws	n/a	n/a	74%

Note: n/a = question not asked of respondent type.

Not surprisingly, 10th-grade youth were not as supportive as adults and opinion leaders of imposing fines on youth for purchasing cigarettes. However, the majority of 10th-grade youth were in favor of communities enforcing laws that prevent people from selling cigarettes to youth under age 18.

Community Program Effects

Adults exposed to a local program to stop stores from selling tobacco to youth were more likely than adults not exposed to the program to support policies that make youth pay fines for buying tobacco.

Media Program Effects

Adults exposed to the youth access-focused ads were more likely than adults not exposed to support policies that make youth pay fines for buying tobacco. Opinion leaders exposed to youth access-focused ads were more likely to support policies that make youth pay fines for buying tobacco, to support licensing store owners to sell tobacco, and to believe that easy access to tobacco influences youth to start smoking.

Implications and Recommendations

Commercial sources of tobacco need special targeting.

Clearly, from opinion leaders to adults to youth, Californians believe more should be done to prevent youth access to tobacco. Despite such support, there appeared to be complacency regarding the ability of youth to buy tobacco from retail outlets. Most adults, opinion leaders, and enforcement agency staff appeared to feel current levels of enforcement and compliance are adequate, and yet, they also believed a substantial number of stores would sell tobacco to youth. Moreover, more than one-half of enforcement agency staff surveyed believed that most young people get their cigarettes from stores.

It is critically important that local communities and media work in concert to dispel the notion that current levels of enforcement are adequate and that youth access is not an important area for increased vigilance. Outreach to media professionals to generate press attention to youth access issues and activities, as well as placement of paid advertisements, can work to raise public consciousness and build a norm that does not tolerate disregard for laws regarding illegal sales of tobacco to minors.

There is clear indication from current data and other youth surveys that liquor stores and small markets are the biggest sources of commercially acquired cigarettes. Educational and enforcement efforts should target these types of stores more vigorously and develop intervention strategies specifically for these outlets.

Although the 29% rate of compliance with the minimum-purchase-age law in 1996 was better than many other states, there is still a need to decrease the youth sales rate in California further. Also demonstrating the need for greater compliance is the finding that 63% of youth who tried to purchase tobacco in the last 30 days reported success. This suggests that youth may frequent stores they believe are the most likely to sell tobacco illegally. Given limited resources and competing priorities, the identification of the most popular retail sources of tobacco for minors in communities may help local enforcement officials more effectively target their efforts**.**

Younger-age youth report obtaining tobacco from vending machines despite a state law prohibiting vending machine access to children. Tobacco control efforts need to pinpoint where youth access to vending machines occurs and increase enforcement of existing laws. Local tobacco-control programs have been active in this area, with four jurisdictions passing local policies to completely ban youth access to vending machines and 24% of LLAs working to pass complete bans.

There needs to be better understanding about the social sources of tobacco.

California youth report having easy access to tobacco. Stores, however, are no longer the most important source of tobacco for minors. Historically, youth reported commercial sources as their primary source of cigarettes, and tobacco control efforts focused on curbing illegal sales of tobacco at retail outlets. These efforts have paid off, and underage tobacco purchase surveys in California and elsewhere have documented a decline in youth tobacco sales rates. Youth smoking prevalence, however, has not decreased along with the illegal sales rate, indicating that social sources have probably become more frequent avenues for youth to obtain cigarettes.

Approximately two-thirds of underage youth (8th- and 10th-graders) reported that they get cigarettes from social sources (primarily friends); very few reported buying tobacco themselves (6% to 14%). This suggests that there is a need to focus more attention on understanding and controlling social sources of tobacco. During 1996, 71% of project directors reported creating educational and media campaigns that addressed the social sources of tobacco. These efforts must continue and grow.

Comprehensive efforts must reduce retail and social sources of tobacco.

Reducing youth access to tobacco is a difficult challenge. A wealth of research indicates that education about health risks alone is not effective. Easy availability of tobacco via select retail and difficult-to-control social sources points to the need for creativity and innovation in developing efforts to reach youth, and calls for comprehensive approaches from TCS-funded agencies, statewide media efforts, CDE programs, and other local constituencies to reduce youth access to tobacco from retail and social sources. Comprehensive approaches are needed because prior studies[18] have found that reduced retail access alone does not lower youth smoking rates and leads to increased access from social sources. Other methods, such as higher tobacco prices, may also reduce youth tobacco consumption.

STAKE Act signs and stickers must have greater reach and recall.

The data show that public awareness of STAKE Act signage is far overshadowed by the tobacco industry's signage. Although 43% of adults and 44% of opinion leaders were aware of TCS-developed STAKE Act signs and ads to call 1-800-5-ASK-4-ID, 66% of adults and 85% of opinion leaders were aware of the tobacco industry signs saying “It’s the Law” or “We Card.” More must be done to create memorable signage, achieve broad and extensive dissemination, and increase merchant compliance with the proper display of STAKE Act signage. Low-density counties reported the lowest level of awareness of STAKE Act signage. Special efforts are needed in these areas.

The statewide media campaign appears to have prompted calls to the STAKE Act number. Despite these desirable effects, it is important to note that very few Californians placed calls. The media campaign must sharpen and intensify its message, and the community must be mobilized to use the 1-800-5-ASK-4-ID number**.**

Messages must be carefully crafted to communicate clearly a social norm that does not tolerate youth access to tobacco**.** Adults understand that smoking harms youth and many have learned that they can take some action (i.e., call a 1-800 number) to stop the sale of tobacco to youth, but the ads are not teaching adults that youth access to tobacco is a problem. Efforts need to encourage Californians to see this issue as a serious problem and take more action.

Enforcement is a key to changing retailer behavior: Enforcement efforts can be increased.

Many youth and opinion leaders think that youth access to tobacco is a serious problem; yet only 25% of enforcement agency staff believed it to be serious compared to other problems. This attitude on the part of enforcement agency staff likely hampers efforts to decrease youth access to tobacco and suggests that much work needs to be done with enforcement agencies to raise tobacco control as a priority. Even though California has one of the lowest rates of illegal sales to minors as measured through youth purchase surveys, nearly one-third of tobacco retailers sold tobacco to youth in 1996.

The Independent Evaluation identified several important avenues to increasing enforcement. First, counties with LLA project directors who reported higher rates of collaboration with enforcement agencies were more likely to have higher reported frequencies of Penal Code 308 enforcement. However, over one-half of enforcement agencies have not worked with anti-smoking coalitions or public health agencies. There also has been little interaction between enforcement agencies and merchant or business organizations. Collaboration may include targeting factors that enforcement agencies cite as barriers to performing their duties, such as limited staff, inadequate budget, and low perceived priority in the community. Perhaps tobacco control programs can look for ways to increase volunteer support for enforcement, lower the costs for enforcement, and use public pressure to convince enforcement agencies that the community wants action. In addition, recent efforts to train local law enforcement personnel (PC 308 trainings) may have a positive future impact. Tobacco control programs should pursue youth access-focused activities to stimulate community pressure for enforcement. These activities should be publicized, and enforcement agencies should be informed.

Second, another important target for collaboration are media professionals who control the amount, nature, and prominence of press coverage of youth access issues. To overcome the barrier of perceived public disinterest in stringent enforcement of youth access laws, mass media attention is critical. Moreover, the statewide media campaign had a positive impact on opinion leaders' belief that youth access influences youth to smoke, suggesting the potential impact of increased media attention to this issue. Enhanced education and promotion of youth access issues to the public and community leaders can help increase enforcement.

Third, more calls to the STAKE Act hotline were also associated with more enforcement. Recommendations were given above about the need to increase the reach and recall of the STAKE Act message.

Additional policies to reduce youth access are needed.

Localities should continue not only to focus on efforts to change social norms about the availability of tobacco, demand greater compliance with laws, and achieve more frequent and stronger enforcement, they should also pass ordinances that will restrict or totally ban youth access to tobacco (i.e., through vending machines or self-service displays). The more local policies that are passed, the greater will be the pressure to enact policy at the state level. Such activities will be especially important if many of the youth access provisions at the federal level are blocked or weakened.

Licensing stores that sell tobacco may be one way to decrease the likelihood that liquor stores and small markets will sell to youth. Policies to license tobacco retailers garnered strong support from a wide audience, including adults, opinion leaders, and enforcement officials. In addition, enforcement officials believed that the removal of licenses for merchants who sell tobacco to underage youth would effectively decrease youth access to tobacco from commercial sources. Moreover, the statewide media campaign showed a positive relationship with support for such policies. Through enhanced media and educational efforts, tobacco control programs should pursue ordinances to license tobacco retailers.

Another area for additional policy work is banning self-service displays. For example, a significant percentage of 8th-grade youth (22%) reported that they get cigarettes by stealing them. While youth may sometimes steal cigarettes from social sources, such as family members, it is likely that many steal from retail outlets and, particularly, self-service displays. Several jurisdictions passed policies banning self-service displays in 1996, and four additional LLAs are working in this area. Ordinances banning self-service displays should be pursued and enforced.

Overall, LLAs must work to initiate policies with strong enforcement provisions and to focus on enforcement efforts once policies are passed. Enforcement of current laws appears to be relatively weak and inconsistent. Mere passage of additional policies will likely meet the same fate unless follow-up enforcement is present.

D. Countering Pro-Tobacco Influences

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D. Countering Pro-Tobacco Influences

Introduction

The main objectives for this section of the report are to:

1. Describe the status of local policies regarding tobacco advertising and sponsorship;
2. Describe the level of awareness and perceived importance of tobacco advertising and sponsorship issues for adults, youth, and opinion leaders;
3. Describe the level of support for additional policies to counter pro-tobacco influences; and
4. Examine the relationship between delivery of community and media tobacco control programs and exposure to those programs, and attitudes, beliefs, behaviors, policy enactment, and enforcement in the area of countering pro-tobacco influences.

Data sources used in these analyses included progress report data from TCS-funded agencies; written project director surveys; content analysis of the statewide media campaign; adult, youth, and opinion leader surveys; enforcement agency staff surveys; and local policy data.

Countering pro-tobacco influences in California's tobacco control program takes a comprehensive approach to de-glamorizing tobacco and the tobacco industry. Strategies include efforts to reduce tobacco advertising at the point-of-purchase, and on billboards, buses, and shelters; teach youth about how tobacco ads are created to entice young people to smoking; motivate advocacy against tobacco industry sponsorship of community, cultural, and sports events; reduce the prevalence of positive tobacco images in the entertainment industry; and educate the public about the marketing practices of the tobacco industry. The primary focus of the first wave of data collection in the Independent Evaluation was on efforts to reduce tobacco advertising and promotions.

Tobacco companies advertise to entice new smokers into the market. Studies in California and elsewhere have indicated that the tobacco industry explicitly targets youth. For example, surveys of California stores, conducted as part of "Operation Storefront" in 1995, found that more than 50% of tobacco ads are placed next to candy or below 3 feet (the eye level of a small child).[19]

It is clear that advertising to youth is a major tactic of tobacco companies and that countering pro-tobacco influences through reducing or changing the placement of advertisements is an important goal of tobacco control.

At the end of 1996, only two of the 288 jurisdictions in the 18 evaluation counties had a public policy to restrict tobacco advertising, specifically. While no policies to restrict tobacco advertising or sponsorships were passed during the evaluation period, LLAs reported attempting to initiate tobacco control ordinances to restrict/ban advertising (14%), restrict/ban promotional items (14%), and restrict sponsorship of events (5%).

During the previous year, most local tobacco-control project directors reported at least some involvement in activities to:

- Pass or strengthen voluntary and legislated policies to reduce youth exposure to tobacco advertising and promotions (80%);
- Educate merchants about limiting tobacco advertisements in their stores (81%);
- Create alternative sponsorships to refuse tobacco company money (52%);
- Pass anti-tobacco advertising policies for stadiums, rodeos, fairs, billboards, etc. (50%);
- Create support to implement and enforce existing national, state, and/or local laws and regulations to reduce exposure of youth to tobacco ads and promotions (81%);
- Develop countering advertising campaigns (67%).

Awareness of and Perceived Importance of Pro-Tobacco Influences

Adults and youth reported that tobacco advertising is ubiquitous.

Virtually all adults reported seeing pro-tobacco advertisements, promotions, and signage regularly on television (i.e., sports coverage) and billboards, in newspapers and stores, and at sports and community events. Adults and youth reported seeing "a lot" of pro-tobacco messages in stores, more so than in other venues. In addition, 81% of 10th-graders reported that they saw people smoking on TV "sometimes" or "a lot."

Most adults and 10th-grade youth seemed to be aware that tobacco advertising targets people to their own detriment; however, most youth and opinion leaders did not believe that tobacco advertising was a serious problem.

Most 10th-grade youth believed that tobacco companies try to get young people to start smoking by using advertisements that are attractive to young people (85%), try to get people addicted to cigarettes (88%), and would continue to sell cigarettes even if they knew that smoking hurts people (94%).

Seventy-five percent of adults, 62% of 10th-grade youth and 87% of opinion leaders believed that tobacco advertising and promotions influence kids to start smoking; however, only 36% of 10th-grade youth and 47% of opinion leaders believed that it is a serious problem that tobacco products are advertised in their communities.

Community Program Effects

"Operation Storefront" showed a greater relationship to youth outcomes than adult outcomes.

In the focal evaluation counties that conducted a local community program, "Operation Storefront: Youth Against Tobacco Advertising and Promotion," adults who were exposed to the program did not have stronger beliefs than adults not exposed to the program that tobacco advertising and promotions influence youth to start smoking. However, youth exposed to the program were more likely to believe that:

- Ads make young people want to start smoking.
- It is a serious problem that tobacco is advertised in their community.
- Tobacco companies try to get people addicted to tobacco.

Media Program Effects

Ads that focused on countering pro-tobacco influences were positively associated with adult and youth awareness of the dangers of tobacco use.

The general-audience advertising media campaign aired ads that emphasized the manipulative intentions of tobacco companies to encourage smoking regardless of the health hazards. These ads were positively associated with adult and youth awareness of pro-tobacco influences on youth. Adults who remembered more countering-focused general audience advertisements were more likely to believe that tobacco advertising and promotions influence youth to smoke. Youth who had seen more ads were more likely to believe that:

- Tobacco companies try to get young people to start smoking by using advertisements that are attractive to young people.
- Tobacco companies try to get people addicted to smoking.
- Tobacco companies would not stop selling cigarettes if they knew for sure that smoking hurt people.

However, youth who had seen more state tobacco control ads were less likely to believe that tobacco advertising in the community was a serious problem. Perhaps exposure to statewide media convinced youth that the problem of tobacco advertising was being addressed.

What Kinds of Pro-Tobacco Advertising Restrictions Do People Think Exist?

The community is confused about the extent of restrictions on tobacco advertising.

A large proportion of adults did not know or wrongly thought that local regulations existed for limiting tobacco advertising in stores (46%), on outdoor billboards and buses (54%), and at community events (48%). Tenth-grade youth also were unclear about limitations on tobacco advertising, with most not knowing or wrongly believing that there are restrictions in local stores (79%) and on billboard and buses (76%). Opinion leaders were a little more knowledgeable about local restrictions, but a substantial proportion (41%) believed their communities do have restrictions, when in fact only two jurisdictions across the 18 focal counties had a public policy to restrict tobacco advertising.

Community Program Effects

In the focal counties that conducted a local community program, "Operation Storefront: Youth Against Tobacco Advertising and Promotion," adults exposed to the program believed that their community had limitations on tobacco advertising and sponsorship more than adults who were not exposed to the program. Youth exposed to Operation Storefront programs also believed their community had more limitations on billboards, buses, and stores than youth not exposed to a program.

Personal Behavior

- ***About one-third of 10th-graders owned tobacco promotional items and reported receiving mail from tobacco companies, including product catalogs, coupons, and surveys.***

- ***Two-thirds of 10th-graders reported seeing young people wearing or carrying tobacco promotional items "sometimes" or "a lot."***

- ***About 4% of youth reported having talked to someone who works at a store about not advertising cigarettes or selling cigarettes to kids.***

Community Program Effects

Youth exposed to the Operation Storefront programs owned slightly more tobacco promotional items and thought they would use tobacco promotional items more than youth not exposed to the program. This may indicate that Operation Storefront programs were reaching youth who were being influenced by pro-tobacco messages. Youth exposed to the Operation Storefront programs were more likely to have talked to someone about not advertising tobacco than youth not exposed.

Support for Policies to Restrict Tobacco Advertising and Sponsorship

- ***Overall, most adults supported policies that would restrict tobacco advertising and sponsorship; youth were less supportive.***

The majority of adults and opinion leaders supported a policy to ban tobacco advertising in stores, tobacco sponsorship of events (i.e., sports events, fairs, or community events), and outdoor advertising (i.e., billboards, buses, and bus shelters) (Table 4).

TABLE 4
PERCENT OF RESPONDENTS EXPRESSING SUPPORT FOR POLICIES TO BAN TOBACCO ADVERTISING (1996)

	Adults	Opinion Leaders
Advertising in Stores	60%	63%
Sponsorship of Events	56	57
Outdoor Advertising	61	63

- Opinion leaders representing the media, business, and law enforcement were less supportive of these policies than other types of opinion leaders; media, business, and law enforcement opinion leaders were also the least likely to think tobacco advertising and promotions influence youth to smoke.
- Forty-nine percent of 10th-graders agreed that tobacco advertising should not be allowed in places where youth see it (i.e., on billboards, at sports or community events, in magazines read by youth).

Overall, most adults supported policies that would prohibit youth from wearing or bringing tobacco promotional items to school; youth were less supportive.

- Seventy percent of adults and 68% of opinion leaders thought that kids under age 18 should be prohibited from wearing or bringing to school items with a tobacco company brand name or picture on them; opinion leaders representing education voiced the highest support (86%).
- Only 39% of 10th-graders believed that promotional items should not be brought to school.

Community Program Effects

In the focal counties that conducted a local community program, "Operation Storefront: Youth Against Tobacco Advertising and Promotion," adults who were exposed to the program did not have stronger opinions about restricting advertising than adults not exposed to the program. Youth exposed to the program believed that there should be restrictions on where ads are placed more than did youth not exposed.

Media Program Effects

A positive relationship was found between youths' recall of countering-focused ads and their belief that tobacco advertising should not be allowed in places where youth will see it.

Implications and Recommendations

Efforts to raise public concern about tobacco advertising and promotion are critical.

Fewer youth and opinion leaders believed that pro-tobacco influences were a serious problem than believed that youth access and exposure to ETS were serious problems. Overall, the Independent Evaluation revealed fairly low concern about tobacco marketing coupled with almost universally high exposure to tobacco ads. Efforts need to continue to counter pro-tobacco influences and increase the public's perception that pro-tobacco influences are a serious threat to the well-being of the community.

The media campaign can help build community norms that do not tolerate ubiquitous tobacco advertising. In the last few years, there has been a concerted effort to educate people about the strategies used by tobacco companies to encourage people, especially youth, to start smoking. Ads depicting the way tobacco companies entice and "hook" youth to become addicted smokers were found to be positively associated with beliefs about the negative influence of tobacco ads and promotions and youth support for restrictions on these pro-tobacco cues and messages. More media targeting this issue is likely to result in stronger negative perceptions of tobacco companies and their advertising tactics.

Californians do not know that the placement and prevalence of pro-tobacco messages are largely unregulated.

Very few Californians are aware of the lack of regulations concerning tobacco marketing and promotion. In fact, most adults, youth, and opinion leaders appeared to believe there are more restrictions than currently exist. The Independent Evaluation data indicated a slight majority of the public supports stricter policies, such as bans on ads in stores, bans on advertising on outdoor billboards, buses and bus shelters, and elimination of tobacco sponsorship of sports events, fairs, or community events. There is a clear need to inform Californians that there are few restrictions on tobacco marketers' efforts to tout the benefits of tobacco use.

Although a majority of community members favored restrictions on pro-tobacco influences, support needs to be stronger for any such policies to have a chance of passing. Local activities and media can build public support for restrictions on tobacco marketing by publicizing that few policies exist and that current confidence that action is under way is misplaced. As people learn the truth about the existing lack of policy, their support for policy will likely follow because most do not support prevalent marketing of tobacco, especially to youth.

Policy action at the local level must continue.

Program activities that should be continued are those already developed and implemented by many local community programs. These include continued efforts to pass local advertising policies, find alternatives for tobacco industry monetary support, and educate the public and relevant community groups as to the influence of tobacco advertising. Specifically, tobacco control programs need to continue efforts to:

- Pass or strengthen voluntary and legislated policies to reduce youth exposure to tobacco advertising and promotion, especially if enactment of the proposed FDA regulations is thwarted;
- Pass anti-tobacco advertising policies for stadiums, rodeos, fairs, and billboards;
- Create alternative sponsorship to replace tobacco money;
- Create support to implement and enforce existing national, state, and local laws;
- Educate merchants about limiting tobacco advertisements in their stores;
- Be prepared to develop counter advertising campaigns if the proposed FDA advertising regulations are stopped;
- Push for the adoption of policies to prohibit youth from bringing tobacco promotional items to school.

Given the uncertainty of the FDA regulations and a global tobacco settlement, there is a persistent need for local action to ensure local jurisdiction over enforcement and regulation of pro-tobacco influences. Effective local action is doubtful without the collaboration of key community leaders and support from diverse constituencies. Local community programs and statewide media must work in concert to teach people about the importance of restricting exposure to pro-tobacco cues and messages, especially among youth.

Outreach to key policy-makers and community leaders is needed.

Opinion leaders representing law enforcement, business, and the media reported the least concern about the problem of pervasive tobacco marketing in their communities. These are three critical constituencies for tobacco control. Lack of law enforcement support can render any policy or regulation ineffective. Business leaders may strongly oppose restrictions on marketing unless they are educated about the important influence pro-tobacco messages have on youth smoking initiation. The media can promote awareness of the issues and control the amount of coverage that tobacco marketing actions receive. Local programs must increase their efforts to build relationships with these groups to develop support for reducing the amount of pro-tobacco influences to which youth are exposed.

CHAPTER 4

Evaluation of School Tobacco Use Prevention Education Program

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Evaluation of School Tobacco Use Prevention Education Program

Background

Since the inception of the California Tobacco Control Program (TCP), a portion of the funds in the Health Education account have been appropriated to public schools for implementation of school-based Tobacco Use Prevention Education (TUPE) interventions. Program components include entitlements to school districts for in-school tobacco education, intervention, and cessation programs; funding to county offices of education for technical assistance and support to districts; and a competitive grants program for innovative projects. The goal of the school-based TUPE program is to prevent and reduce tobacco use among California's youth.

The TUPE program is administered by the California Department of Education (CDE). During the first four years of the program, tobacco funds were administered as part of the Drug, Alcohol, and Tobacco Education (DATE) program, in which CDE merged several sources of federal and state funds for local school-based substance abuse prevention programs into one application process. Since the beginning in the 1994-95 fiscal year, administration of the TUPE program has been independent of local assistance for alcohol and other drug programs.

In the early years of the statewide program, tobacco programs targeted students in grades kindergarten through 12. Programmatic emphasis was placed on training teachers and other school staff on effective tobacco prevention strategies, implementing a combination of activities designed to reduce tobacco-use initiation and to provide intervention for current users, and implementing programs that addressed risk and protective factors for tobacco use.[20]

Beginning in fiscal year 1994-95, the authorizing legislation for the TCP (AB 816) specified that funds for school-based tobacco prevention interventions be allocated through two separate mechanisms. The first was funding for tobacco programs in grades four through eight, which is allocated on an entitlement basis. The second was funding for programs in grades nine through 12, which is awarded through a competitive grant process. In addition, starting in 1994-95, schools were required to design their tobacco programs based on the *Guidelines for School Health Programs to Prevent Tobacco Use and Addiction*, published in 1994 by the Centers for Disease Control and Prevention (CDC).[9] The guidelines included the following:

1. Develop and enforce a school policy on tobacco use.
2. Provide instruction about the negative physiologic and social consequences of tobacco use, social influences on tobacco use, peer norms regarding tobacco use, and refusal skills.
3. Prevention education should be especially intensive in junior high/middle school and should be reinforced in high school.
4. Provide program-specific training for teachers.
5. Involve parents or families in support of school-based tobacco use prevention programs.
6. Support cessation efforts among students and all school staff who use tobacco.
7. Assess the tobacco-use prevention program at regular intervals.

This evaluation of the school-based TUPE program assessed the progress of CDE, County Offices of Education (COEs), and local school districts in meeting the mandates of the Proposition 99 enabling legislation. The time period for the evaluation overlapped with three school years, 1994-95, 1995-96, and 1996-97. Primary objectives of the evaluation were to:

- Describe the type and extent of school-based TUPE activities, programs, interventions, and policies implemented in a sample of schools in the focal evaluation counties;
- Examine the extent to which schools were implementing programs based on the CDC guidelines for school-based tobacco use prevention and cessation;
- Examine common barriers to school-based TUPE program implementation;
- Describe levels of exposure to TUPE programs and intermediary outcomes (i.e., students' tobacco-related attitudes, beliefs, behaviors, and knowledge); and
- Examine relationships between exposure to TUPE programs and intermediary outcomes.

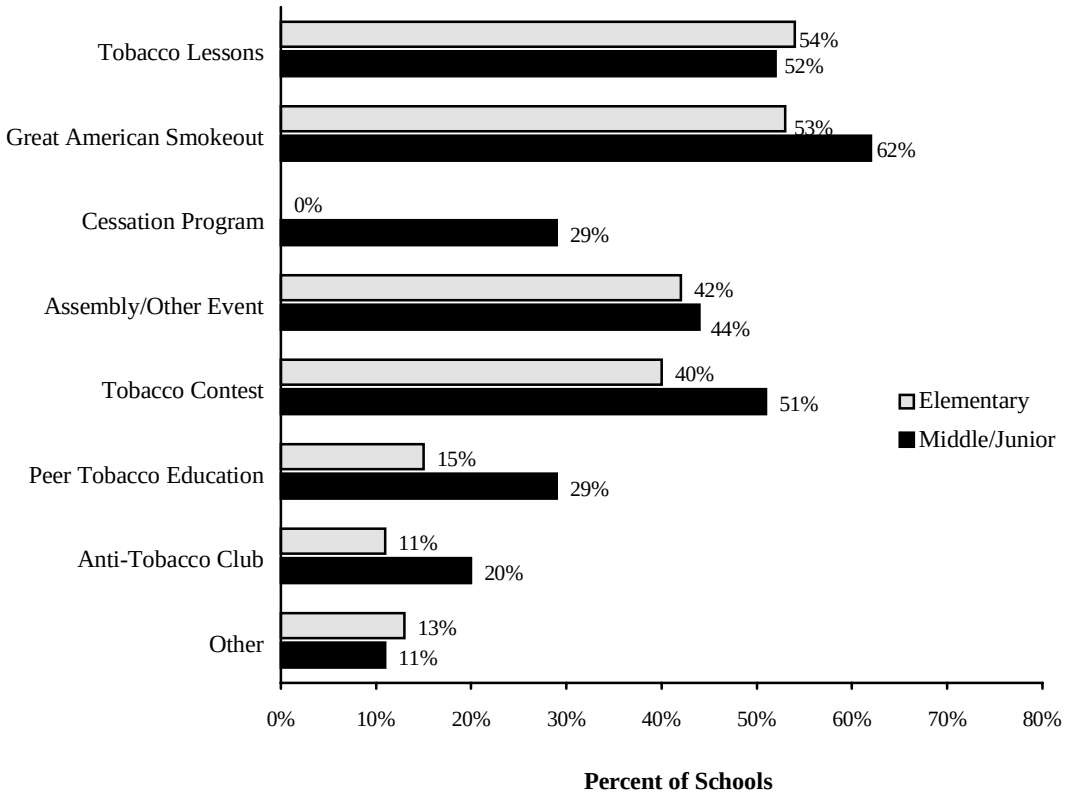
Data sources used in these analyses included school-based youth, teacher, school site administrator, and school district TUPE coordinator surveys.

Program Implementation Findings

Schools implemented multiple TUPE program components.

Figure 26 shows the types of TUPE programs and activities that were implemented in elementary and middle/junior high schools during the 1995-96 school year. Based on teacher survey data, school averages for implementation of at least one tobacco prevention lesson were 54% for fifth-grade and 52% for eighth-grade teachers.* School administrators reported that the most prevalent schoolwide tobacco prevention event was the Great American Smokeout. Peer tobacco education programs were implemented in nearly one-sixth (15%) of elementary schools and more than one-fourth (29%) of middle/junior high schools. Examples of "other" tobacco prevention activities that schools implemented include health fairs, Red Ribbon Week, animation workshops, and dances.

FIGURE 26
Tobacco Use Prevention Education (TUPE) Activities Implemented in Elementary and Middle/Junior High Schools during 1995-96 School Year



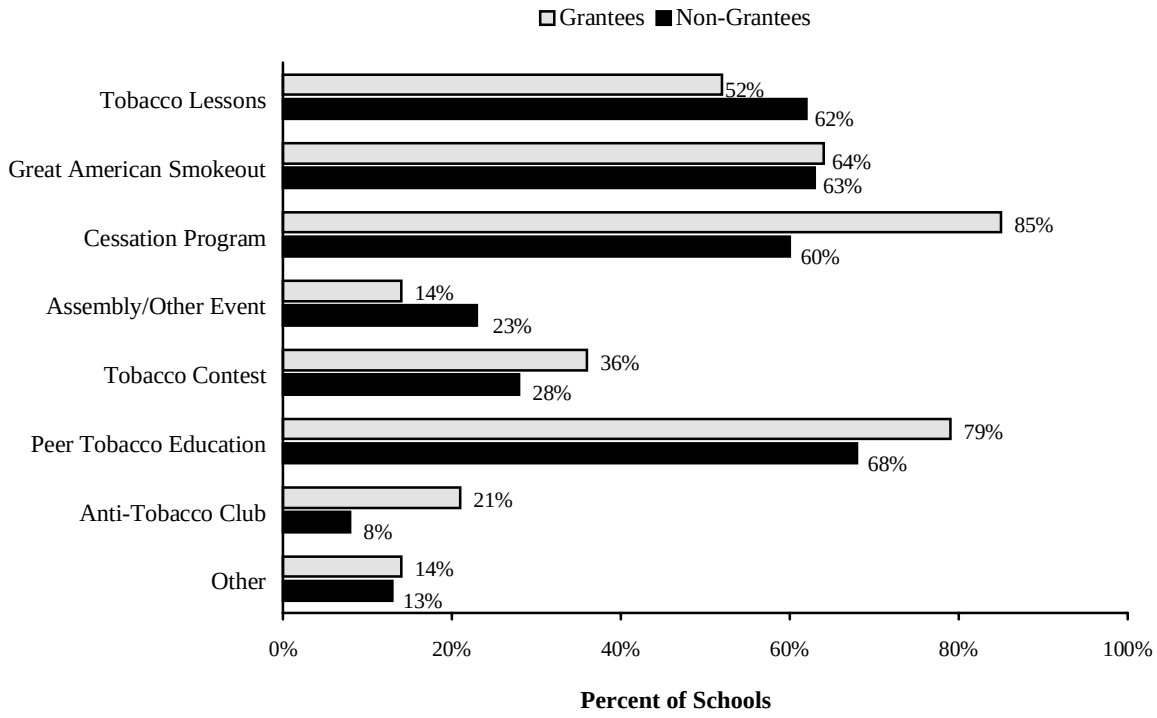
n=111 Schools in 18 Focal Counties.

* Throughout this report, responses of 8th- and 10th-grade teachers were restricted to those who taught science, social science, health, and/or physical education.

High schools that received TUPE competitive grants implemented more cessation support and peer education programs than high schools that did not receive grants.

We compared the tobacco programs and interventions implemented by high schools that received TUPE grants during 1995-96 with those of high schools that did not receive grants (non-grantee high schools) (Figure 27). Consistent with TUPE grant guidelines, we found that cessation interventions were more common in TUPE grantee high schools (85%) than in non-grantee high schools (60%), a difference that was marginally significant ($p<.10$). Other differences between grantee and non-grantee high schools in the prevalence of types of activities were not statistically significant. In high schools overall, implementation of schoolwide events such as the Great American Smokeout (64%) was more common than implementation of at least one tobacco lesson by 10th-grade teachers (57%).

FIGURE 27
Tobacco Use Prevention Education (TUPE) Activities Implemented in High Schools during 1995-96 School Year, TUPE Grantee vs. Non-Grantee High Schools



n=53 Schools in 18 Focal Counties.

Interviews with school district TUPE Coordinators indicated that the "I Quit Using It!" program, developed by the American Cancer Society, was the most common tobacco cessation program implemented in high schools. Furthermore, TUPE coordinators reported there was overlap in the strategies used for each student target group in grantee high schools. For example, counseling and support groups were common strategies targeted at both current tobacco users and students at risk for tobacco use. In some districts, tobacco instruction and schoolwide events were implemented for students at risk and the general student population.

The most common tobacco prevention curriculum materials used in schools were those developed by voluntary health organizations.

Results show that the most prevalent curriculum materials in use (81%) were those developed by the American Cancer Society (ACS), American Heart Association (AHA), and American Lung Association (ALA). The *Here's Looking at You, 2000* curriculum, which addresses tobacco, alcohol, and other drug use, was used in more than two-thirds (71%) of the school districts. The middle and high school versions of the *Tobacco Free* curriculum, which is distributed by CDE and consists of lessons that may be infused into multiple subject areas, were used by 34% and 20% of districts, respectively.

Application of CDC Guidelines

This evaluation examined the extent to which tobacco prevention programs implemented by California school districts in 1995-96 were based on CDC's national *Guidelines for School Health Programs to Prevent Tobacco Use and Addiction.*[9] Evidence related to each guideline is discussed below.

CDC Guideline #1: Develop and enforce a school policy on tobacco use.

Nearly all of the school districts in California have adopted a no-tobacco use policy.

Since the 1995-96 school year, school districts have been eligible to apply for TUPE funds only if they have a board-adopted policy that prohibits the use of tobacco by all students, school staff, parents, and visitors in district-owned or leased buildings, on district grounds, and in district vehicles. As of Fall 1995, approximately 95% of school districts in California had adopted such a policy.

The majority of students in grades five, eight, and ten were aware that their school has a rule prohibiting smoking.

We examined the mean proportion of 5th-, 8th-, and 10th-graders who reported their school has a rule prohibiting smoking in the school building or on the school yard. We found that awareness of the no-smoking policy was higher among 8th-graders (90%) and 10th-graders (94%) than among 5th-graders (78%). However, the existence of a policy and awareness of its existence by those to whom it applies are not sufficient to ensure a smoke-free environment for schools unless enforcement of the policy is also high.

Perceived student compliance with school no-tobacco use policies in high schools was higher among teachers than among students.

As is shown in Table 5, although the majority of 10th-grade teachers (61%) reported that "a few" or "none" of student smokers violated the no-smoking rule at their school, nearly one-third (32%) reported that "most" smokers break the rule. The majority of 10th-grade students (69%) indicated that "some," "most" or "all" student smokers break the rule.

TABLE 5
PERCEIVED STUDENT COMPLIANCE WITH HIGH SCHOOL TOBACCO-FREE POLICY

	10th-Grade Students (n=5,835)	10th-Grade Teachers (n=151)
How many student smokers break the no-smoking rule at your school?		
None	8%	12%
A Few	23	49
Some	26	7
Most	29	32
All	14	0

The two most common penalties for violating the school's no-smoking policy were calling the students' parents and suspending or expelling the student.

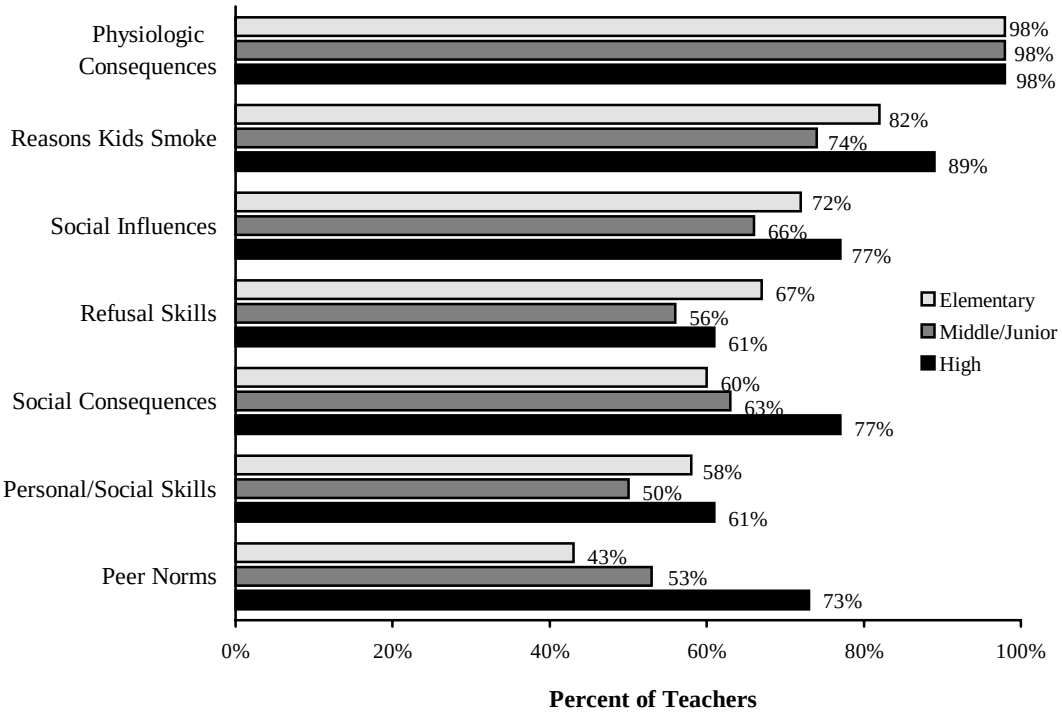
The majority of middle/junior high and high school administrators reported that students' parents are called (77%) and students are suspended or expelled (77%) when they are caught smoking cigarettes. Only a few high schools (7%) and one-fourth of middle/junior high schools required students who use tobacco on school grounds to attend a special tobacco education class or program (i.e., "Saturday school") as a positive alternative to suspension. However, in 40% of middle/junior high and 24% of high schools, students were referred to (but not required to attend) a tobacco education program.

CDC Guideline #2: Provide instruction about the negative physiologic and social consequences of tobacco use, social influences on tobacco use, peer norms regarding tobacco use, and refusal skills.

Teachers were more likely to address the physiologic consequences of tobacco use than psychosocial factors in their tobacco instruction.

Figure 28 shows that the coverage of psychosocial issues during tobacco lessons was lower among 8th-grade, compared to 5th- and 10th-grade teachers. A minority of 5th-grade teachers (43%) and only 53% of 8th-grade teachers addressed peer norms, which have been shown to be a critical mediator of substance-abuse-prevention program effectiveness.[21] Social consequences, another important mediator of program outcomes, were addressed by only 60%, 63%, and 77% of elementary, middle/junior high, and high school teachers, respectively.

FIGURE 28
Topics Addressed by Teachers in Tobacco Lessons
1995-96 School Year



n=186 Teachers who taught tobacco lessons in SY 1995-96.

CDC Guideline #3: Tobacco-use prevention education should be especially intensive in junior high or middle schools and should be reinforced in high school.

During the 1995-96 school year, tobacco instruction was no more common in 8th-grade than in 5th- and 10th-grade classrooms.

As reported in Figures 26 and 27, school averages for implementation of tobacco lessons were 54% among 5th-grade teachers, and 52% and 57%, respectively, among 8th- and 10th-grade teachers.

CDC Guideline #4: Provide program-specific training for teachers.

***The majority of teachers (80%) had not participated in program-specific training during the five years prior to the survey*.**

Survey responses indicated that 24% of teachers had participated in some type of tobacco in-service during the five years prior to the survey. However, most of the training provided general information about tobacco, rather than preparing teachers to implement a specific tobacco curriculum. Only 11% of 5th-grade, and 17% of 8th- and 10th-grade teachers had participated in program-specific training during the past five years.

TUPE Coordinators were asked whether they had conducted staff-development activities, such as in-service training, distribution of newsletters, and distribution of tobacco prevention resources, during 1995-96. The majority (71%) reported their school district had sponsored at least one tobacco in-service training on tobacco prevention education. In addition, 65% of districts had distributed such resources as pamphlets, fact sheets, curriculum ideas, and videos to teachers.

CDC Guideline #5: Involve parents or families in support of school-based programs to prevent tobacco use.

Teachers and school administrators reported they made few efforts to involve parents in tobacco prevention education.

Among teachers who provided tobacco lessons in 1995-96, 77% of 5th-grade, 72% of 8th-grade, and 84% of 10th-grade teachers had tried "not too much" or "not at all" to involve parents in tobacco education. These findings were corroborated by school site administrators. Among the 1,120 adult respondents to our telephone survey who were parents of children enrolled in grades 4 through 8 in a local public school, 34% reported that during the previous year, their child had brought home an assignment that involved parent/child discussion about tobacco.

CDC Guideline #6: Support cessation efforts among students and all school staff who use tobacco.

Even though most high schools (73%) implemented tobacco-use cessation programs, most students (73%) were not aware of the programs.

We found that in high schools that had a cessation program, only 27% of 10th-grade students were aware of the program. Students who had smoked in the 30 days prior to the survey were no more likely to know about the cessation program (25%) than were nonsmokers (28%). In these high schools, 29% of teachers reported that they had referred at least one student to the program in the previous year. In high schools overall, only 28% of teachers had received information about smoking cessation programs for school staff.

CDC Guideline #7: Assess the tobacco-use prevention program at regular intervals.

TUPE Coordinators were asked if their school district had evaluated its TUPE program during the five years prior to the interview. The majority of districts had conducted some type of evaluation. About half had administered a student survey, one-fourth had surveyed staff, and a few had conducted parent surveys.

Barriers to Program Implementation

The two most common barriers to implementing tobacco prevention education reported by both teachers and TUPE Coordinators were lack of time and lack of adequate instructional materials.

Table 6 shows the percentage of teachers who reported that seven specific factors were barriers to providing tobacco education. The most common barrier to program implementation among 5th-grade (70%) and 8th-grade teachers (50%) was lack of time. Lack of instructional materials was more common among 5th-grade (51%) than 8th-grade teachers (34%). One-sixth (17%) of 8th-grade teachers reported tobacco education was not a high priority at their school. In addition, 19% of 5th-grade and 16% of 8th-grade teachers reported that tobacco education was not a high priority in their district.

TABLE 6
BARRIERS TO TOBACCO PROGRAM IMPLEMENTATION REPORTED BY 5TH- AND 8TH-GRADE TEACHERS[1]

Barrier	5th-Grade Teachers (n=113)	8th-Grade Teachers (n=131)
Lack of time	70%	50%
Lack of adequate instructional materials	51	34
Inadequate training	30	31
Not a high priority in district	19	16
Not a high priority in school	9	17
Not appropriate for my subject area	n/a	17
Not my responsibility	2	6
Other	7	3

Note: n/a = question not asked of respondent type
[1] Percentage who agreed that each was a barrier; do not add to 100.

TUPE Coordinator interview data corroborated the teacher self-reports. The top five barriers to tobacco program implementation reported by coordinators were: lack of time/commitment to tobacco education; lack of resources; lack of teacher and/or administrative support; the fact tobacco is taught in isolation from other subject areas; and lack of program standards.

The majority of 8th-grade teachers (59%) reported that tobacco education was a "medium" or "low" priority at their school, relative to other health education topics.

Middle/junior high school administrators were more likely to report tobacco education as a "high" or "the highest" priority among health education topics at their school (66%) than were 8th-grade teachers (41%). In elementary schools, 52% of administrators and 47% of teachers rated tobacco education as being a "high" or "the highest" priority in health education.

In many districts, there was variation in levels of tobacco program implementation across schools within the district, and about one-fifth of elementary and middle/junior high administrators were unaware of their districtwide tobacco education plan.

TUPE Coordinators reported there was moderate to considerable variation in program implementation across elementary schools in their district. However, they believed that there was less implementation variation across middle/junior high schools. Even though school districts develop a districtwide plan for tobacco program implementation in their schools when they apply for entitlement funds, 25% of elementary school and 17% of middle/junior high school administrators reported that their school had no plan, or they were unaware of their districtwide plan for tobacco education.

Similarly, there was evidence for variation in tobacco prevention education across individual teachers within schools. The majority of 5th-grade (63%) and 8th-grade (58%) teachers reported they often make their own decisions about which topics and materials they will use in tobacco prevention lessons.

Program Outcome Findings

Program Exposure

About one-half of 5th-, 8th-, and 10th-grade students reported being exposed to lessons about tobacco use during the year prior to the survey.

Table 7 shows the proportion of students who recalled being exposed to specific TUPE program activities during 1995-96. Fifty-five percent of 5th- and 8th-graders, and 50% of 10th-graders reported they had received tobacco lessons. Surprisingly, more 10th-graders in non-grantee high schools (53%) than in grantee high schools (47%) recalled lessons about tobacco use.

TABLE 7
STUDENT RECALL OF TUPE ACTIVITIES DURING THE PAST YEAR

	5th-Grade Students (n=3,133)	8th-Grade Students (n=5,814)	10th-Grade TUPE Grantee High Students (n=2,369)	10th-Grade Non-Grantee High Students (n=4,518)
Had lessons about tobacco use	55%	55%	47%	53%
Attended an assembly or event about tobacco use	43	40	25	22
Heard in-class tobacco presentation by a peer leader	13	18	n/a	n/a
Celebrated Great American Smokeout	10	20	24	23
Practiced refusal skills during class	58	47	n/a	n/a

Note: n/a = question not asked of respondent type.

Fifth- and 8th-grade students reacted more favorably to the tobacco-related information they received in school than did 10th-grade students.

The majority of 5th- (73%) and 8th-grade students (55%) thought that the tobacco-related information they received in school during the previous year was helpful in making decisions about tobacco use. Less than half of 10th-graders (42%) reported that the information was helpful.

Tobacco-Related Behaviors, Beliefs, Attitudes, and Knowledge

The prevalence of cigarette, cigar, and smokeless tobacco use increased with grade level. Although cigarettes were the most common tobacco used by students, cigar use was common as early as grade 8.

Table 8 presents students' lifetime and 30-day use of cigarettes, smokeless tobacco, and cigars. The data indicate that the majority of 10th-graders (63%) had tried a cigarette, compared with 45% of 8th-graders and 12% of 5th-graders. The 30-day prevalence of cigarette use (any use in the 30 days prior to the survey) was 5% for 5th-grade, 17% for 8th-grade, and 28% for 10th-grade students. More than one-fourth (28%) of 8th-graders and 40% of 10th-graders reported they had tried a cigar at least once.

TABLE 8
STUDENTS' USE OF CIGARETTES, SMOKELESS TOBACCO, AND CIGARS, BY GRADE

	5th-Grade Students (n=3,133)	8th-Grade Students (n=5,814)	10th-Grade Students (n=6,887)
Ever tried a cigarette, even a few puffs	12%	45%	63%
Smoked a cigarette on at least one day in past 30 days	5	17	28
Ever tried chewing tobacco or snuff	3	6	10
Used chewing tobacco or snuff on at least one day in past 30 days	5	4	4
Ever tried a cigar, even a few puffs	n/a	28	40

Note: n/a = question not asked of respondent type

Among 8th- and 10th-graders who had smoked at least 100 cigarettes in their lifetime, 59% and 50%, respectively, had tried to quit at least once.

Table 9 shows the prevalence of quit attempts among 8th- and 10th-grade students who had smoked at least 100 cigarettes in their lifetime. Half of 8th-grade and 43% of 10th-grade smokers had tried to quit smoking during the year prior to the survey. Nearly half of 10th-grade (49%) and 44% of 8th-grade smokers reported that they would like to quit smoking cigarettes.

TABLE 9
CIGARETTE SMOKING QUIT ATTEMPTS AMONG
8TH- AND 10TH-GRADE STUDENT SMOKERS

	8th-Grade Student Smokers (n=468)	10th-Grade Student Smokers (n=1,243)
Ever tried to quit smoking	59%	50%
Tried to quit during past year	50	43
Would like to quit smoking	44	49

The majority of 8th- (56%) and 10th-graders (60%), and 24% of 5th-graders were categorized as susceptible to become smokers.

Susceptibility to smoke is defined as the absence of a conscious decision not to smoke another cigarette.[22] The susceptibility measure discriminates between youth resolved not to smoke and those who are still open to the possibility of smoking, even if they have not yet tried a cigarette. We created a susceptibility index based on the same questions used by Pierce and colleagues in California Tobacco Survey interviews. A value on the index was created for each student, based on whether or not they had ever smoked a whole cigarette and whether or not they intended to smoke in the future (i.e. whether they would "definitely," "probably" or "probably not" smoke). The results showed that 24% of 5th-grade, 56% of 8th-grade, and 60% of 10th-grade students were categorized as susceptible.

The majority of youth believed that there are negative consequences of tobacco use, and a sizable minority also believed there are positive social consequences of smoking.

Table 10 shows the percent of youth who agreed or strongly agreed with eight statements about specific physiologic and social consequences of tobacco use. The majority of youth in grades 5, 8, and 10 (93%) believed that the physiologic consequences of smoking were negative. For example, 93% of youth agreed with the statement, "Secondhand smoke is bad for your health." Eighth- and 10th-grade students were more likely to agree with statements regarding positive, social consequences of tobacco use than were fifth-grade students. For example, 23% of 8th- and 10th-graders agreed that "young people who smoke have more friends," compared with 14% of 5th-graders. In addition, 46% of 10th-graders, 36% of 8th-graders, and 28% of 5th-graders believed that smoking makes young people more relaxed.

TABLE 10
PERCENT OF YOUTH WHO AGREED WITH SPECIFIC STATEMENTS REGARDING THE CONSEQUENCES OF TOBACCO USE

	5th-Grade Students (n=3,133)	8th-Grade Students (n=5,814)	10th-Grade Students (n=6,887)
Secondhand smoke is bad for your health	92%	94%	93%
People can get addicted to tobacco	n/a	91	92
Secondhand smoke can cause cancer in a nonsmoker	n/a	91	94
Smoking cigarettes makes people smell bad	94	92	91
Smoking makes young people more relaxed	28	36	46
Young people who smoke are more grown-up	24	17	9
Young people who smoke have more friends	14	23	23
Smoking cigarettes makes young people look "cool"	10	16	14

Note: n/a = question not asked of respondent type.

Occasional smoking was perceived to be acceptable among 8th- and 10th-graders, and perceived acceptability of smoking among peers increased with students' age.

We assessed students' perceptions of the acceptability of tobacco use among their peers. Results indicated that a majority of 8th-graders (70%) and 10th-graders (83%), but a minority of 5th-grade (33%) students, believed that their peers "think it is okay to smoke once in a while." By 10th-grade, the majority (56%) believed that their friends would act "friendly or very friendly" if they smoked.

Students overestimated the prevalence of 30-day smoking among their peers.

Previous research has shown that students tend to overestimate the prevalence of smoking among their peers, and further, that these incorrect estimates contribute to a willingness on the students' part to try smoking.[23] We asked students to estimate the percentage of students their age who smoke cigarettes at least once a month. We found that the mean estimate of 30-day smoking among peers was 23% for 5th-grade, 43% for 8th-grade, and 51% for 10th-grade students. These estimates are more than two times greater than the actual 30-day prevalence rates reported above (5% for 5th-grade, 17% for 8th-grade, and 28% for 10th-grade students).

The majority of students reported high levels of refusal self-efficacy; 81% of 10th-graders said they could easily refuse a cigarette offered by a friend.

We assessed students' refusal self-efficacy, or the extent to which young people believed that they can say "no" to friends' cigarette offers. We found that 65% of 5th-graders, 69% of 8th-graders, and 81% of 10th-graders believed it would be "very easy" or "somewhat easy" for them to say "no" if their best friend offered a cigarette. A sizable minority of youth did not perceive themselves as having effective refusal skills.

The majority of 8th- and 10th-grade students expressed somewhat negative tobacco-related attitudes.

We assessed tobacco-related attitudes among 8th- and 10th-graders, including (1) attitudes toward smokers; (2) attitudes toward the tobacco industry, and (3) attitudes toward enforcement of tobacco policies. Results indicated that the majority of 8th- (78%) and 10th-graders (75%) disagreed or strongly disagreed with the statement, "I like being around people who smoke." Similarly, the majority of 8th- and 10th-graders (84%) agreed or strongly agreed with the statement, "Tobacco companies try to get people addicted to cigarettes." Most students expressed positive attitudes toward enforcement of community tobacco laws. For example, 63% of 8th-graders and 54% of 10th-graders agreed with the statement, "Youth should be made to pay fines if they are caught smoking cigarettes." However, 10th-grade students were less positive about enforcement of school no-tobacco policies. Nearly two-fifths of 10th-graders (39%) and 63% of 8th-graders agreed with the statement, "Schools should expel students who are caught smoking cigarettes."

Students' tobacco-related knowledge varied by topic and grade level.

Each group of students was asked age-appropriate questions about the health effects of tobacco use. We found that their tobacco-related knowledge varied by both grade and specific question. The great majority (94%-97%) knew that smoking by a pregnant woman can cause harm to the unborn baby. A smaller majority (61%-78%) knew that smoking makes asthma worse. Fewer (41%-45%) seemed to understand that teen-agers can become addicted to cigarettes, and that cigarettes contain harmful substances other than nicotine (43%-53%).

Relationships Between Program Exposure and Outcomes

To investigate relationships between program exposure and program outcomes, we created an index of program exposure in which students' self-reported recall of the following program components were summed: at least one tobacco lesson, a Great American Smokeout event, other schoolwide tobacco-related assemblies and events, a tobacco-related peer education program, and a school-based cessation program. Because most schools implemented more than one of these TUPE program components throughout the 1995-96 school year, we could not investigate the independent effectiveness of each component. We also created indexes of program outcomes in which relevant survey items were standardized and averaged. Using school as the level of analysis, we examined correlations between the Program Exposure Index and each of the outcomes. The statistically significant correlations are presented below.

Among 5th-graders, there were significant relationships between program exposure and tobacco-related knowledge, beliefs about consequences of tobacco use, and one of the attitude measures.

In schools in which 5th-grade students had higher exposure to TUPE programs, relative to those in which 5th-grade students had lower program exposure:

- Students had more negative beliefs about the consequences of tobacco use ($r = .30$, $p < .05$).
- Students had more negative attitudes toward the tobacco industry ($r = .46$, $p < .0001$).
- Students had higher levels of tobacco-related knowledge ($r = .50$, $p < .0001$).

Among <u>8th-graders</u>, there were significant relationships between program exposure and cigarette use, tobacco-related knowledge, beliefs about consequences, and two of the attitude measures.

In schools in which 8th-grade students had higher exposure to TUPE programs, relative to those in which 8th-grade students had lower exposure:

- Students had a lower prevalence of 30-day cigarette use ($r = .28$, $p < .05$).
- Students had more negative beliefs about the consequences of tobacco use ($r = .27$, $p < .05$).
- Students had more negative attitudes toward the tobacco industry ($r = .52$, $p < .0001$).
- Students had more positive attitudes toward enforcement of tobacco policies ($r = .26$, $p < .05$).
- Students had higher levels of tobacco-related knowledge ($r = .53$, $p < .0001$).

Among <u>10th-graders</u>, there were significant relationships between program exposure and tobacco-related knowledge, and one of the attitude measures.

In schools in which 10th-grade students had higher exposure to TUPE programs, relative to those in which 10th-grade students had lower exposure:

- Students had more negative attitudes toward the tobacco industry ($r = .31$, $p < .05$).
- Students had higher levels of tobacco-related knowledge ($r = .33$, $p < .01$).

Tenth-grade students in TUPE grantee high schools did not differ from 10th-grade students in non-grantee high schools on any of the outcome indicators.

Implications and Recommendations

Greater emphasis needs to be placed on providing tobacco instruction to students, particularly in middle/junior high schools.

Even though CDE's guidelines for the TUPE program state that school districts must provide tobacco instruction and activities for all students in grades 4 through 8, we found that only about one-half of students in grades 5 and 8 recalled exposure to tobacco lessons. Furthermore, the amount of tobacco instruction delivered was inconsistent from one teacher to another, and from one school to another.

In accordance with CDC recommendations, more tobacco instruction needs to be provided, particularly in middle/junior high schools. To support tobacco instruction, school districts should work on rebuilding the infrastructure that was put in place in the early years of the TUPE program, which included more program coordination, teacher training, and instructional resources. To address teachers' perceived lack of time for tobacco education, districts should provide curricula and teacher training that prepares teachers to integrate tobacco education with other subject areas. Finally, in its TUPE funding applications, program memos, comprehensive compliance reviews, and other communications, CDE should emphasize the requirement for tobacco instruction to all students in grades 4 through 8.

Information about effective tobacco prevention approaches, particularly those that address powerful social influences to use tobacco, should be disseminated to local educational organizations.

The evaluation results showed that tobacco prevention approaches that have not been evaluated properly, including educational materials developed by voluntary health organizations, commercial curricula, and schoolwide events such as assemblies, were more prevalent in schools than were prevention programs that are based on rigorous research (i.e., the Minnesota Smoking Prevention Program). Furthermore, tobacco instruction was more likely to address the health effects of tobacco use than the psychosocial factors that are essential to an effective curriculum, such as enhancing refusal skills, altering perceptions of peer tobacco use, addressing social influences that promote tobacco use, and involving parents.

CDE should consider developing and disseminating a detailed guide to effective tobacco prevention curricula, such as the guide to substance abuse programs recently developed by the nonprofit organization Drug Strategies.[24] Although CDE cannot officially endorse any educational product that is merchandised for sale, it should play a stronger role in encouraging districts to adopt effective programs. Schools need to receive information about the importance of selecting tobacco programs that are based on sound research, and that have the best chance of deterring tobacco use.

Greater emphasis should be placed on program-specific training in effective tobacco prevention curricula.

Many programs that address social influences to use tobacco and focus on building students' refusal skills require teachers to use teaching methods that may be very different from the methods they commonly employ. Program-specific teacher training increases teachers' preparedness to implement tobacco prevention programs, and increases the quantity and quality of program delivery.[25] School districts should be encouraged to use the finite staff-development funds that they have for training workshops that prepare teachers to implement effective social influences curricula, rather than conducting trainings that provide general information about tobacco.

Schools should put greater effort into enforcement of their no-tobacco use policy.

Our findings suggest that a considerable proportion of student smokers violate smoke-free policies in schools. Efforts to enforce these policies should be increased. Schools should consider implementing smoking cessation awareness programs (e.g., Smokeless Saturday School) for those who are found using tobacco on campus, as positive alternatives to suspension or disciplinary study hall. Our findings also suggest that schools need to make student smokers more aware of the school-based cessation programs that are available. Stronger policy enforcement may also reinforce the smoke-free social norms that are emphasized in tobacco instruction.

There is a need for more detailed information about the extent and effectiveness of prevention and cessation programs implemented in TUPE grantee high schools.

We found that TUPE grantee high schools were implementing multiple program components, including classroom instruction, schoolwide events, peer education programs, counseling, and smoking cessation services. However, 10th-grade students in TUPE grantee high schools reported less exposure to tobacco instruction than did students in non-grantee schools, and awareness of school cessation programs was relatively low among students in grantee schools. These results were corroborated by 10th-grade teachers in grantee high schools, who reported a slightly lower rate of tobacco lesson implementation than did 10th-grade teachers in non-grantee high schools (a non-significant difference). With regard to program outcomes, we found no statistically significant differences between 10th-graders in grantee and non-grantee high schools.

There is a need for detailed information about the tobacco prevention and cessation approaches being used in grantee high schools. Since CDE requires that school districts receiving TUPE high school grants conduct an evaluation of their program, districts should be encouraged to collect data on how prevention approaches are applied to different student target groups and how effective programs are in reducing tobacco use. At the state level, efforts should be made to provide technical assistance to evaluators to ensure that the information they collect is useful in future program planning.

Information about the consequences of cigar use should be included in school-based tobacco instruction.

Our results indicate that a substantial proportion of youth had smoked cigars, which is consistent with national trends. School-based tobacco education programs should be adapted to address social influences to use cigars, misperceptions regarding peer cigar-use norms, the health effects of cigar use, and skills to refuse cigar offers.

Consistent delivery of effective school-based tobacco prevention programs will require a consistent allocation of adequate funding to local school districts and county offices of education.

During the school year that overlapped with this evaluation, 1995-96, local assistance funding for TUPE programs was at the lowest point in the history of the California TCP ($5.37 per student in grades 4-8). Inadequacy of funds reduced the availability of adequate instructional materials, the ability of districts to support staff to coordinate programs, and the ability to provide sufficient teacher training. Adequate funding on a consistent basis is required in order that districts be able to purchase state-of-the-art tobacco prevention curricula, provide proper training, and provide ongoing implementation support.

CHAPTER 5

Collaboration Among Tobacco Control Program Components

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Collaboration Among Tobacco Control Program Components

Introduction

In addition to the separate effects of each TCP component, it is important to understand how the components collaborated, cooperated, and enhanced each other's efforts. One goal of the Tobacco Control Program is to involve a variety of groups in the tobacco control effort, including those that do not traditionally see tobacco as a focus. Another goal is to encourage cooperation and collaboration among the health, education, and community-based organizations that implement Proposition 99-funded tobacco control programs. Inter-agency collaboration is important because cooperation among different agencies can potentially enhance the effectiveness of TCP activities. For example, a community program may be more effective if it is publicized by the local media. In addition, without effective collaboration, tobacco control programs may duplicate one another's efforts, compete with one another for public attention, or inadvertently undermine one another's efforts.

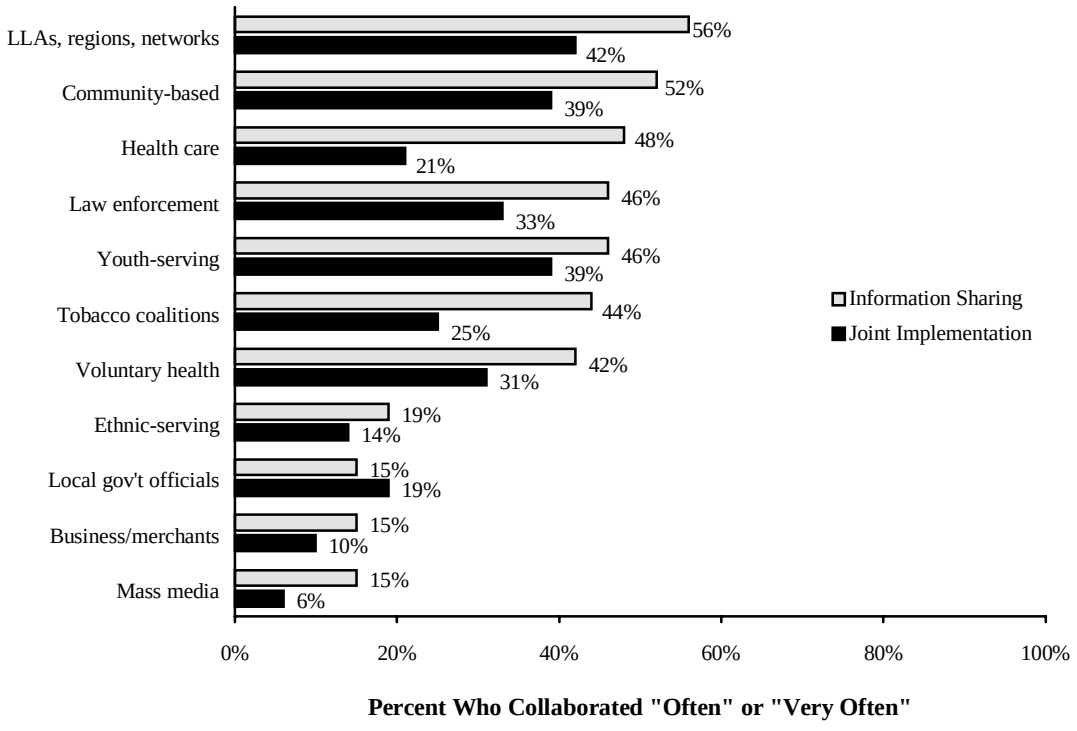
This chapter evaluates the extent to which TCP components collaborated with one another. The analyses used data from the TUPE Coordinator and Project Director surveys. To gain an understanding of the linkages among TCP components, school district TUPE program coordinators and project directors of TCS-funded tobacco control programs were asked how frequently they collaborated around tobacco control issues with individuals and groups within their counties. Collaboration was defined in two ways: (1) sharing information and materials; and (2) implementing joint programs and events.

TUPE Coordinators and Project Directors were asked to rate their collaboration with the following organizations:

1. Health care organizations
2. Local government officials
3. Mass media
4. Voluntary health organizations
5. Community-based organizations
6. Ethnic-serving organizations
7. Youth-serving organizations
8. Law enforcement agencies
9. Business/merchants
10. County-sponsored tobacco coalitions (TUPE coordinators only)
11. Public education (Project Directors only)

Figure 29 shows the TUPE Coordinators' ratings of their cooperation with schools, local media, TCS programs, and other programs.

FIGURE 29
TUPE Coordinators' Collaboration with Other Organizations



TUPE Coordinators collaborated most frequently with TCS-funded programs, such as LLAs, regions, networks, and grantees.

TUPE coordinators collaborated most frequently with TCS-funded programs (LLAs, regions, networks, and grantees) and with community and health care organizations. They collaborated least frequently with mass media and business/merchants.

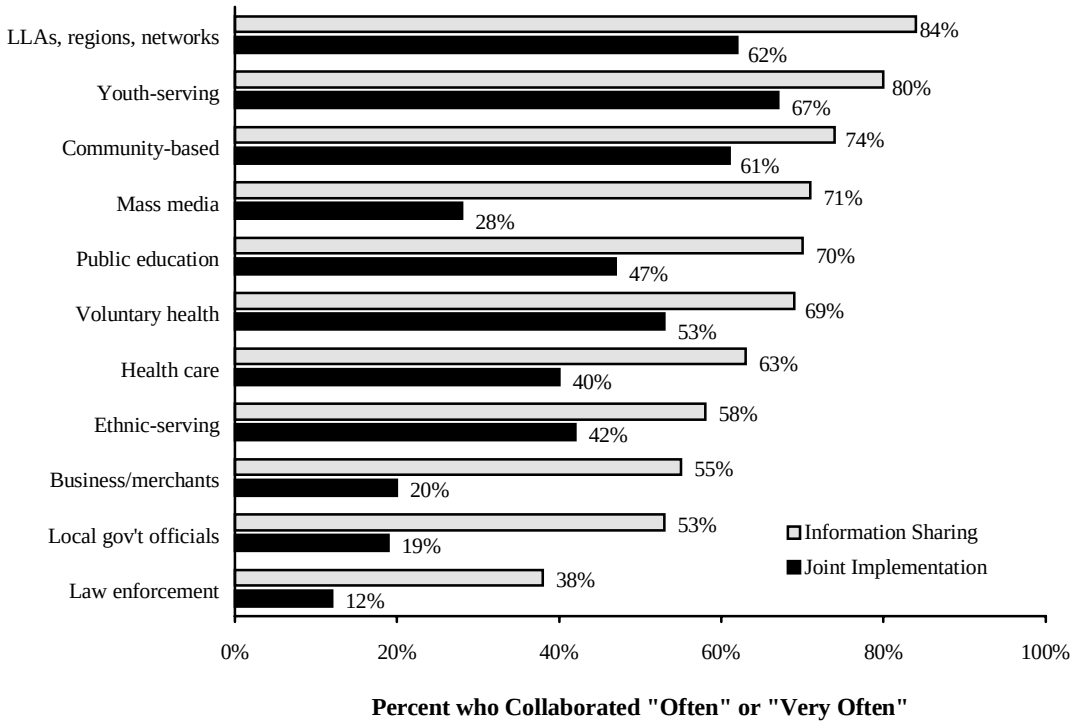
TUPE Coordinators shared information and materials with other organizations more frequently than they implemented joint programs and events.

Regardless of the agency with which they collaborated, TUPE coordinators nearly always reported that they shared information and materials more frequently than they implemented joint programs and events. This was especially true for health care organizations. Over twice as many TUPE coordinators reported sharing information with health care organizations as reported implementing joint programs and events with health care organizations.

Project Directors collaborated most frequently with TCS-funded programs such as LLAs, regions, and networks.

Figure 30 shows the Project Directors' ratings of their collaboration with other agencies. Like the TUPE coordinators, Project Directors were most likely to cooperate with TCS-funded programs (LLAs, regions, and networks). Project Directors also reported frequent collaboration with youth-serving organizations and community-based organizations. Project Directors were least likely to collaborate with law enforcement and local government officials.

FIGURE 30
Project Directors' Collaboration with Other Organizations



Project Directors shared information and materials with other organizations more frequently than they implemented joint programs and events.

Regardless of the agency with which they collaborated, Project Directors were more likely to share information and materials than they were to implement joint programs and events. This was especially true in regard to collaborative efforts with mass media, business/merchants, local government officials, and law enforcement.

Project Directors reported higher levels of collaboration than did TUPE Coordinators.

The majority of the Project Directors reported collaborating “often” or “very often” with each type of organization, except law enforcement. In contrast, collaboration with other organizations by TUPE Coordinators was typically less than 50%.

Project Directors were successful in obtaining local media support, but collaboration with local media sources could still be improved.

Three-fourths of Project Directors reported that they actively sought to use the local media to publicize an event, although only one-half reported that it was easy to receive media coverage for a local event or new program. Over one-half (55%) of the Project Directors stated their programs had been "very successful" in seeking publicity for events and other programmatic activities. One-half of Project Directors reported that the local media worked with them to promote programs and messages, and only 7% reported that lack of local media support was "very much of a barrier" to program implementation.

Over one-third of opinion leaders reported that either they personally (15%), or someone in their organization (20%) were a member of an LLA tobacco control coalition.

Of the opinion leaders surveyed, those who represented health organizations were most likely to report that they had participated in LLA coalitions (42%). Not one of the 61 local media representatives we surveyed in the opinion leader survey reported membership on an LLA coalition.

Fewer than one-sixth of opinion leaders (14%) reported that either they or someone else in their organization were a member of a regional tobacco control coalition.

Regional tobacco coalition membership was reported to be highest among opinion leaders from health organizations (28%) and educational agencies (28%), and lowest among leaders from law enforcement (1%) and the local media (2%).

About 18% of opinion leaders reported that either they or someone else in their organization were a member of at least one of the four TCS-funded Ethnic Networks.

The highest rate of involvement was with the Latino-Hispanic Network (15%), followed by the African American and Asian/Pacific Islander Networks (10% each). The lowest rate of opinion leader involvement was with the American Indian Network (6%). However, among the agencies reporting membership on any Ethnic Network, more than one-half reported that they had not attended any network training or event.

Implications and Recommendations

Schools and communities need to improve their collaboration with the media.

Schools and community programs need to disseminate their program messages through the use of local media. Our findings showed that community residents heard about TCP activities through the media, pointing to the importance of media as a channel to disseminate information. However, only 50% of Project Directors reported that the local media worked with them to promote programs and messages, and fewer than one out of five TUPE Coordinators reported any collaboration with the media. Better collaboration should be established in this area.

Schools and communities need to improve their collaboration with non-TCS organizations.

According to LLA Project Directors and school TUPE Coordinators, LLAs and schools showed evidence of cooperation and collaboration with certain sectors of the community, but not with others. Although LLAs and schools were generally successful in collaborating with each other and with other TCS programs, they were not successful in interacting with law enforcement agencies, local government officials, and business/merchants. Recent efforts to reach out to sectors such as law enforcement and local merchants may lead to increases in collaboration. Technical assistance should be provided to LLAs and schools on how to develop and maintain these relationships. Strong relationships between tobacco control and these sectors should serve to increase enforcement of tobacco control laws.

Although many schools and communities collaborate successfully with one another, further improvement is possible.

Although LLAs and schools are currently engaging in collaborative efforts, our data indicate that over one-fourth of LLAs and nearly one-half of schools do not report frequent community-school collaboration. In order to ensure successful linkages between community programs and school programs, efforts should be made to increase information sharing and joint implementation.

CHAPTER 6

Tobacco Industry Monitoring Evaluation (TIME)

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Tobacco Industry Monitoring Evaluation (TIME)

The goal of the TIME component of the Independent Evaluation is to monitor tobacco industry advertising and promotion practices in California. The main objectives for this section of the report are to:

1. Describe characteristics of tobacco marketing in California newspapers, billboards, public events, magazines, and brand merchandise catalogues;
2. Make comparisons between tobacco marketing in California and other states;
3. Report the perceptions of adults and youth in California related to specific types of tobacco marketing; and
4. Identify tobacco marketing trends which could be addressed by the California TCP.

Data sources used for these analyses included content analysis of newspapers and magazines, street surveys of billboards, expenditure data for outdoor advertising, content analysis of brand merchandise catalogues in convenience stores, phone surveys of events, observation of events, and the Independent Evaluation surveys of adults and youth.

Newspapers

About one in twelve newspaper issues in California carried pro-tobacco ads.

During 1996, we monitored 56 papers from the 18 focal counties for 8 months, for a total of 3,437 issues. We found an average of .08 pro-tobacco ads and .03 anti-tobacco ads per issue, made up of the following types of ads:

- 34% tobacco brand advertisements;
- 22% tobacco sponsored events;
- 9% cigar or tobacco shop advertisements;
- 5% tobacco corporate promotional messages;
- 27% anti-tobacco ads;
- 3% other.

Seventy percent were pro-tobacco, while 27% were anti-tobacco. About one in eleven ads were sponsored by small tobacco and cigar shops, illustrating the recent interest in cigars and related accessories.

Although tobacco ad concentration was low in newspapers, about half (50%) of the adults we surveyed reported seeing advertisements for cigarettes or chewing tobacco “sometimes” or “a lot” in local or national newspapers that they read.

Tobacco advertising was found most often in weekly entertainment newspapers in large cities.

The concentration of pro-tobacco ads varied greatly, depending upon the newspaper focus and audience. When all types of newspapers were considered, pro-tobacco ads were most heavily concentrated in the three weekly entertainment newspapers we monitored from large cities in California, with 1.67 ads per issue in the entertainment papers aimed at a general audience. Among weekly entertainment newspapers aimed at a gay/lesbian audience, however, there were no pro- or anti-tobacco ads found.

Recently there have been full-page ads appearing in weekly newspapers promoting a series of tobacco-sponsored nights at local clubs and bars.

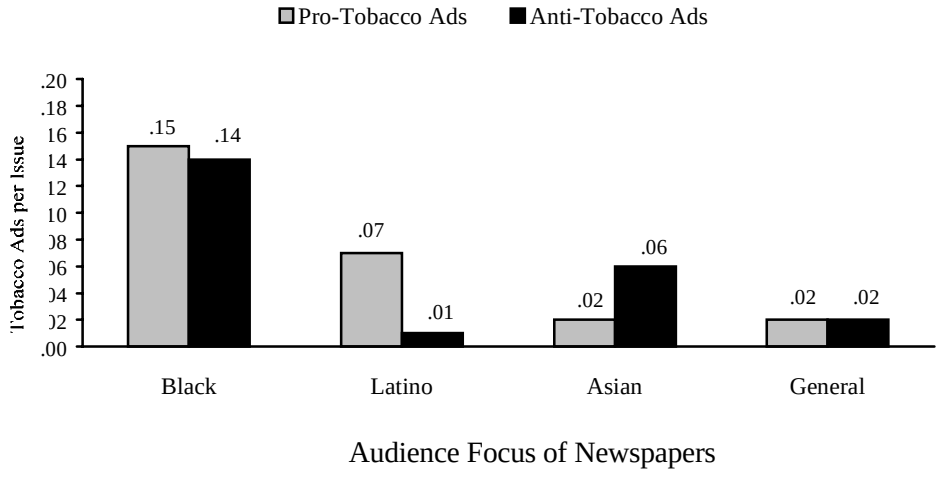
During 1996 and 1997, we observed a new trend in newspaper advertising for tobacco, typically representing large one- to four-page spreads in urban entertainment newspapers such as the *LA Weekly*, or *Bay Guardian*. These ads publicized tobacco-sponsored nights at bars, clubs, lounges, and auditoriums, listing from three to 26 bars or upcoming events. The ads had theme names like "Marlboro Unlimited Nights," "The Camel Page," "Club Benson and Hedges 100 Nights Live!" "Lucky Strike Force Circuit Breaker—Your Information Filter to Avoid Overload." They appeared to be aimed at young adults, often had a busy format, and generally employed graphics and text rather than photographs. Some of these layouts were liberally sprinkled with brief entertaining comments or captions, like one might see in a youth-oriented magazine or "fanzine." It was not always clear that these were paid tobacco advertisements rather than entertainment news.

In the fall of 1997, comparisons were made between the bar/club tobacco ads of October 1996 and October 1997, in three major urban entertainment newspapers: *San Francisco Bay Guardian*, San Jose *Metro*, and *LA Weekly*. Prevalence of these types of ads rose from .43 ads per issue in 1996 to 2.21 ads per issue in 1997, a fivefold increase. More brands were running these bar/club ads, and more bars were listed. These ads were directed at young adults, and were proliferating at a time when California was preparing for the advent of regulations banning smoking in bars.

In news oriented newspapers, tobacco advertising was heaviest in ethnically focused publications.

Among news oriented newspapers, we compared the concentration of pro-tobacco ads to the race or ethnicity of the newspaper's intended audience. Figure 31 displays the number of tobacco ads per issue. Pro-tobacco ads were most prevalent in African American newspapers, with .15 ads per issue, followed by Latino newspapers with .07 ads per issue.

FIGURE 31
Number of Tobacco Ads per Issue by Newspaper Audience



n=152 Black, 274 Latino, 380 Asian, 2,456 General Audience issues.

In the ethnically focused newspapers, the ads were mainly sponsored by just a few brands or corporations: in Latino papers, Philip Morris corporate messages (50%); in African American papers, Benson and Hedges (69%); and in Asian American newspapers, Marlboro (38%) and "555" cigarettes (25% of all pro-tobacco ads).

Most anti-tobacco ads were sponsored by private groups, and featured stop-smoking classes or aids.

The most commonly seen themes were the following:

- 56% stop-smoking classes or aids;
- 23% environmental tobacco smoke;
- 18% countering pro-tobacco influence.

The most prevalent tobacco ad themes in newspapers were product recognition, taste, and savings.

Pro-tobacco ads used a variety of themes to promote sales. We identified the following:

- 16% product recognition (i.e., simple presentation of the package or name);
- 14% taste;
- 9% money savings or discounts;
- 9% romance/flirtation;
- 8% social success/wealth;
- 7% independence.

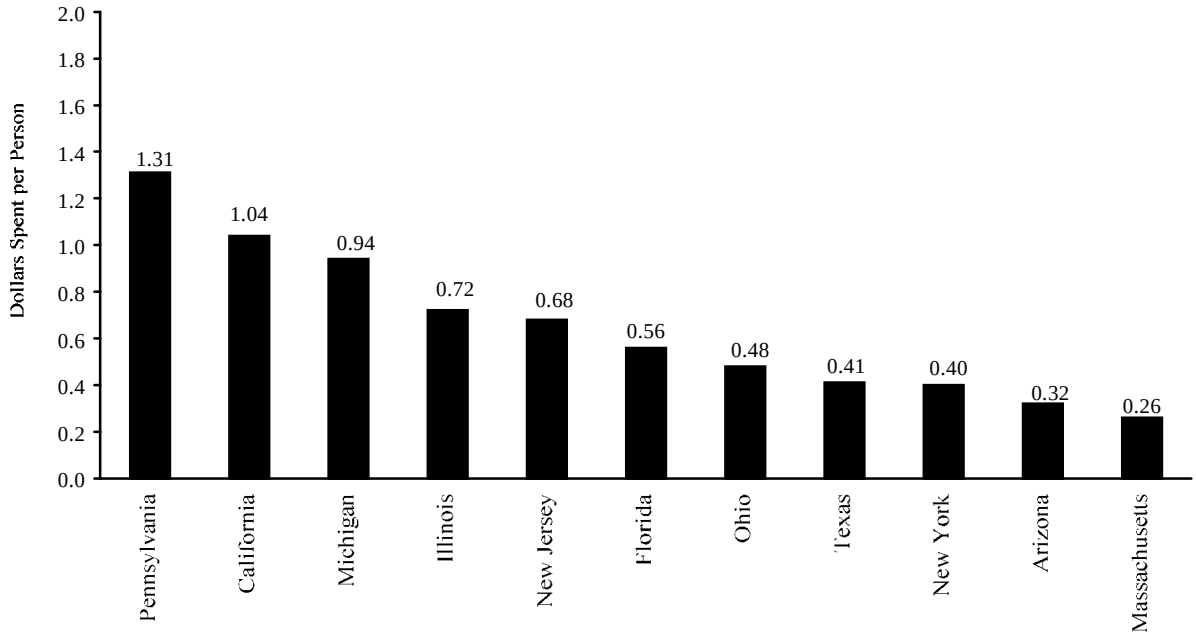
Most of the product recognition themes were for cigar and tobacco shops, which typically had small ads (less than one-quarter page), with graphics or text, usually stating the shop name and listing a few accessories or brands sold there.

Billboards

Tobacco companies spend more on outdoor advertising, per person, in California than in most comparable states in the United States.

Outdoor advertising continues to be a major avenue for tobacco brand promotion. Approximately $32.7 million was spent by the tobacco industry on billboards in California in 1996, up $2 million from 1995.[26] This averages about $1.04 for each person in California. We compared this figure to expenditures per capita in the eight other most populous states in the United States, and to two states with similar statewide tobacco control programs (Arizona and Massachusetts).

FIGURE 32
1996 Tobacco Billboard Expenditures per Person, by State



Source: Competitive Media Reporting, 1996.

Our results suggest that the amount spent in California is higher than almost every other large state in the country. It is three to four times higher than in Arizona and Massachusetts, which have statewide programs in place similar to the California Tobacco Control Program. If we express the ratio as expenditures per smoker, then California would probably rank first. California may be more heavily targeted, compared with other large states, for outdoor advertising by the tobacco industry; or there may simply be more billboards to lease.

It should be noted that, whereas the tobacco industry spends four times as much per capita on outdoor advertising in California compared to Massachusetts, the state expenditures for tobacco control, as reported earlier, are four times greater per capita in Massachusetts than in California.

Surveys of billboards in the focal counties found about one pro-tobacco billboard per mile.

During 1997, we observed billboard advertisements in 13 of the 18 focal counties. The remaining five counties were not surveyed because of ordinances restricting billboards. The sample was comprised of one to four commercial streets that were randomly selected from the largest city in each county and 16 streets in Southern California that were observed in previous studies, for a total of 54 streets or "sites." Then a team surveyed all signs along those one to three mile sites, for a total of 113 miles surveyed.

In these counties, we observed 1,242 billboards, of which 101 were pro-tobacco, and 11 were anti-tobacco. This represents a concentration (number of tobacco billboards compared to total billboards) of 8% pro-tobacco billboards, and a density of almost one (.9) pro-tobacco billboard per mile, with great variation by county, ranging from a high of 2.2 per mile in San Francisco to a low of zero per mile in Shasta and Yuba, where population density is very low.

Most of the pro-tobacco billboard signs were owned and leased by just one company.

There were at least seven billboard companies operating in the surveyed counties. However, most pro-tobacco billboards were owned by a few:

- Outdoor Systems/Gannett/3M (61%);
- Eller (28%);
- Heywood (5%);
- Other Companies (6%).

Outdoor Systems, which had recently acquired the outdoor advertising divisions of 3M and Gannett, was the primary agent, and is one of the largest billboard companies in the country. The next leading site owner was Eller, with 28% of the signs.

There were not significant differences in the amount of pro-tobacco billboards by neighborhood ethnicity.

We examined the ethnicity of residents in each of the geographic areas in which we monitored billboards. Areas were defined as predominantly of one ethnicity if that ethnicity represented a larger percent than any other racial or ethnic group in the combined census block groups (using 1990 census figures) crossing that billboard stretch. Pro-tobacco billboard density (number of pro-tobacco billboards per mile) and concentration (percentage of all billboards that are pro-tobacco) by race and ethnicity of the geographic areas are described in the table below.

TABLE 11
DENSITY AND CONCENTRATION OF PRO-TOBACCO BILLBOARDS IN 13 COUNTIES IN CALIFORNIA, 1997, BY ETHNICITY OF NEIGHBORHOOD RESIDENTS

Predominant Race/Ethnicity of Neighborhood	Number of Sites	Concentration (% of BBs that are Pro-tobacco)	Density (Number of Pro-tobacco BBs per mile)
White	28	9.1%	0.8
African American	8	6.9	1.1
Hispanic	14	8.5	1.1
Asian American	4	8.4	0.2

These rates suggest there may be slightly more tobacco billboards per mile in the African American and Hispanic communities observed but the differences were not statistically significant.

Tobacco billboards that feature photographs of people have primarily White and African American models.

In the pro-tobacco billboards studied in the 13 focal counties in 1997, half (50%) featured photographs with people. Of those, about 12% could not be coded for ethnicity of the model, usually because the face was hidden. In the remainder, the following ethnicities were portrayed:

- 55% Caucasian;
- 36% African American;
- 2% Hispanic/Latino;
- 6% Mixed ethnicity;
- 0% Asian American.

In our sample, African American models were disproportionately portrayed (36%), compared to their percentage in the California population (8%), while Asian/Pacific Islander Americans and Latinos were underrepresented as models.

Many tobacco billboards are close to public schools and playgrounds.

In the 18 focal counties, 36% of adults surveyed in the Independent Evaluation reported "a lot" of tobacco ads on billboards. Slightly more of the youth surveyed (40% of the 8th-graders, and 42% of the 10th-graders) reported seeing "a lot" of tobacco ads on billboards.

Many children are exposed to pro-tobacco billboards on their way to school or play. Using street maps, we investigated the proximity of all tobacco billboards in our study to public playgrounds and schools. On the maps, 49 of the 101 pro-tobacco billboards we identified (49%) appeared to be within 1000 feet of these facilities.

Almost one-third of the pro-tobacco billboards had youthful appeals.

Cartoon characters were featured in 8% of the pro-tobacco billboards. Twenty-three percent had photographs of people who appeared to be under 30 years of age.

Just a few brands and themes make up most of the pro-tobacco billboards.

Most of the exposure by adults and youth was to just a few brands and themes. Among the billboards we coded, the most prevalent brands were:

- Newport (19%);
- Misty (17%);
- Camel (13%);
- Lucky Strike (12%);
- Marlboro (10%);
- Basic (9%).

The primary themes of the ads were:

- Pleasure (18%);
- Health claims (i.e., low tar) (16%);
- Taste (15%);
- Independence (11%);
- Adventure/risk (9%).

There was a new campaign for Winston that appeared in 1997 after the billboard study was completed, claiming no additives in the tobacco portion of Winston cigarettes. This theme suggests a health appeal in tobacco advertising, although Winston argues the message relates to taste rather than health.[27] The campaign also illustrates methods the industry may use to meet proposed restrictions on the use of models in advertising.

Events Sponsorship and Promotions

Tobacco sponsorship of events is an alternative way to reach and influence audiences.

Tobacco companies provide financial support for sporting, cultural, and community events and facilities. This support may help underwrite a tour, special event or arena, in turn permitting the tobacco company to advertise with a sign, display or announcements at the event, list their name in the printed program, display their logo on equipment, setup a booth or promotional team at the event, or similar types of activities.

From May to December 1996, a list was made of all public events in the 18 focal counties that could draw an expected audience of 1,000 or more, and smaller events that might have a strong appeal for adolescents. This list was drawn from Ticketron/Ticketmaster monthly calendars, Chamber of Commerce Listings, the International Events Guide (IEG) Directory, and some magazines. The organizers or venue/facility staff were contacted and asked a standard set of questions to determine whether there was some sort of tobacco promotion, support, promotional activity or permanent sign at the event. If they said yes, then these were considered tobacco-sponsored events.

One in eight events surveyed had some sort of tobacco sponsorship or promotion.

A total of 1,932 events were surveyed. Of these, most were not tobacco sponsored:

- 1,687 events (87%) were categorized as non-tobacco sponsored;
- 245 events (13%) were considered tobacco sponsored.

Tobacco sponsorship was defined as financial support, advertising, or promotion of public events; support for an individual performer, group, or team; support for equipment or facilities; expenditures for advertising in the name of the tobacco company or one of its tobacco brands in a facility, on a scoreboard, or in conjunction with promotions of the event, group, or facility; and distribution or display of promotional items (clothing, hats, cigar shop merchandise, etc.) connected with an event. The most common form of support (41%) was a permanent or rotating tobacco sign at a facility.

We counted as one event all the shows or days of performances with the same general title, on consecutive days at one site. For example, the Los Angeles County Fair, which incorporates many smaller shows over several weeks, would count as one event. Similarly, a play performed for one week, or three nights of home play for the Angels baseball team against the Seattle Mariners, would also each count as one event.

The major events sponsors and promoters in California were Marlboro, Winston, and Skoal.

Most of the sponsorships and promotions at events were provided by three brands:

- Marlboro (44%);
- Winston (34%);
- Skoal/Copenhagen (12%).

Some of these events were widely recognized, such as the Winston NASCAR races, promoting high brand visibility as well as strong associations between the product and the activity. Other forms of support, like Philip Morris grants to the American Ballet, were only briefly noted in the program brochures, and would have promoted a positive corporate image rather than a particular brand.

Tobacco sponsorship and promotions were found in larger events.

Tobacco companies support events that draw larger average audiences. Most of this activity was in the larger urban counties. The average (median) audience size was as follows:

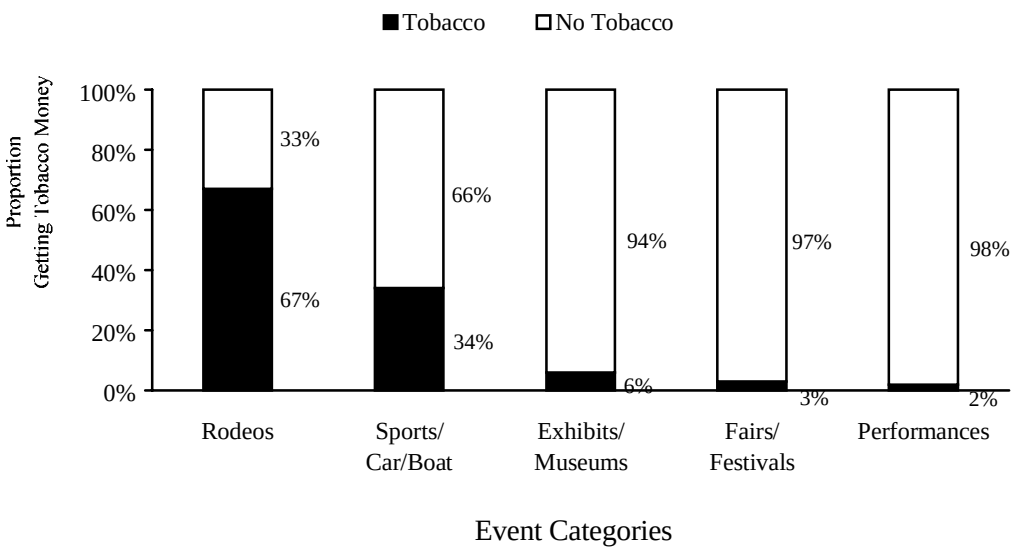
- Tobacco sponsorship or promotion: 18,000 people;
- No tobacco sponsorship or promotion: 6,550 people.

Most events with tobacco sponsorship or promotions were for sports, such as car and boat races, or rodeos.

All events were categorized into one of six types of events: sports/car/boating events, music/ performances, rodeos/horse shows, fairs/festivals, exhibits/museums, or "other." Among those with tobacco sponsorship or promotions, the most prevalent types were sports/car/boating events (79% of all tobacco-sponsored events), such as the World of Outlaw Racing series and the Skoal-sponsored 20th Anniversary Low Rider Show. Rodeos, such as the Professional Rodeo Cowboys Association Series, were second (9%), and the third most prevalent were music/performances (6%). Among the non-tobacco sponsored events, music/performances were most prevalent (54%).

When Californians attended rodeos in 1996, they were probably exposed to tobacco sponsorship, usually by Skoal. About two-thirds of all rodeos received tobacco monies, compared to one-third of sports/car/boat events, and less than one-tenth of other kinds of events (Figure 33).

FIGURE 33
Proportion of Events Getting Tobacco Monies



n = 245 Tobacco and 1,687 Non-Tobacco Funded Events in 18 Counties in 1996.

About 19% of the 10th-graders and 23% of the adults surveyed in the Independent Evaluation reported seeing "a lot" of advertisements or signs for tobacco when they go to sports events, fairs, and community events.

At some tobacco-sponsored events, there is a wide variety of promotional materials as well as opportunities to involve the audience.

At some of the 18 tobacco-sponsored events we observed, especially those with contracts permitting the brand name to be included in the title or advertising for the event, such as the Long Beach Toyota Grand Prix, the Muncey Cup Races on Mission Bay, Los Angeles Fiesta Broadway, and the 20th Anniversary Low Rider Tour, it was not uncommon to see wall-to-wall tobacco brand banners throughout the event site. In addition, the company name or logo could also be seen everywhere: on plastic tote bags, on brand products displayed in booths, and on interactive rides or activities provided for young people. At the Grand Prix, there were Marlboro interactive electronic rides. At the Low Rider Show, young Latino men thronged around the Skoal booth two deep, to be photographed with scantily dressed women on the Skoal Bandit Low Rider Car. While awaiting their turn, they were given free samples of Skoal and instructions on how to use it. At the Muncey Cup Races, artists drew portraits of adult participants alongside Joe Camel, as children gathered to watch. These promotions were participatory and fun.

Advertising signs at events facilities received wide exposure.

Almost half (41%) of the events had some sort of permanent or rotating sign or billboard at the facility. These types of ads expose a variety of audiences that use the facility to pro-tobacco messages. For example, a Marlboro sign at the Great Western Forum can be seen during L.A. Lakers basketball games, as well as more family-oriented ice skating performances.

Tobacco signs at auto and boat racing events and sports facilities often receive television coverage, despite restrictions on tobacco advertising on television. Indeed, it is a relatively inexpensive way to buy broadcast time. Among the adults we surveyed in the Independent Evaluation, 33% reported seeing tobacco advertising with a brand name or logo on television sporting events "a lot." Another 36% reported seeing such images "sometimes."

When comparisons were made between California and 10 comparable states, it did not appear that California events were disproportionately tobacco sponsored.

In a survey of randomly selected events (from Ticketmaster/Ticketron listings and the 1997 IEG Directory) in California and comparison states (described in the billboard section above), we identified sponsorship for 383 California events, and 346 in the 10 comparison states for the months of January—March, 1997. We found approximately the same prevalence of tobacco sponsorship in and out of California:

- 2% of the California events were tobacco sponsored.
- 3% of the events in the 10 comparison states were tobacco sponsored.

The rate of tobacco sponsorship was probably lower in this small 1997 study than in the larger 1996 survey of California sponsored events, because fewer sources or directories of events were used to build the sample that allowed California and out-of-state comparisons. The sources were limited to allow for these comparisons. The results suggest that there is not a significant difference in the proportion of tobacco events sponsorship in California compared to the other states.

Magazines

Pro-tobacco advertisements were more prevalent in out-of-state magazines reviewed (.68 per issue) than in California publications (.56 per issue), however the difference was not significant.

In-state versus out-of-state comparisons were made using regional or statewide general-audience magazines from California and 10 comparison states. The sample of comparison states is listed above in the section on billboard advertising expenditures.

We reviewed six magazines from California, including *Buzz*, *Los Angeles Magazine*, *San Diego Magazine*, *Orange Coast*, *Palm Springs Life*, and *Inland Empire*; and one to five comparable magazines from each of the ten comparison states. The largest circulation magazines with a primarily paid circulation were chosen, and seven months of issues from June 1996 to December 1996 were coded for tobacco advertising. The final sample included 41 issues from six California publications, and 189 issues from 22 out-of-state publications.

Each issue was examined to determine whether it contained pro- or anti-tobacco advertisements. Then the tobacco ads were coded for characteristics. The following types of tobacco ads were found:

TABLE 12
NUMBER OF TOBACCO ADS PER MAGAZINE ISSUE
FOR CALIFORNIA AND 10 COMPARISON STATES IN 1996

Type of Ad	California n=41 issues	Out-of-State n=189 issues
Tobacco Products Ad	.44	.50
Tobacco Corporate Promotions	.00	.00
Tobacco or Cigar Shop	.12	.15
Calendar of Tobacco Events	.00	.02
Total Pro-Tobacco Ads	.56	.68
Total Anti-Tobacco Ads	.00	.01

Tobacco ads in California magazines tended to be longer, and focused on different themes than those in other states.

The tobacco advertisements in California magazines tended to be larger than out-of-state ads, possibly delivering a harder impact and costing relatively more. Comparisons of page length showed the following:

- 74% of the California ads were one page or longer in length.
- 54% of the out-of-state ads were one or more pages.

Themes represented in the tobacco ads tended to differ by location:

- Adventure and risk were the main appeal in 3% of California tobacco ads, compared to 14% out-of-state.
- Independence was the theme in 14% of in-state ads versus 3% out-of-state.
- "Smoking is worth the hardship" was found in 14% of the California ads, compared to 8% outside California.
- Pleasure was the main theme in 14% of California ads, compared to 3% elsewhere.

Dominant themes outside of California included simple product recognition ads (26% out-of-state, 8% California), many of which were cigar or tobacco shop ads; and social success/wealth (12% out-of-state, 8% California).

Tobacco Brand Merchandising

An alternative to traditional tobacco advertising is the promotional sales of specialty items.

In 1995, approximately 14% of cigarette advertising and promotional dollars were spent on specialty item distributions through the mail.[28] These items include sporting equipment, tickets for music performances, clothing, and household furnishings. These are redeemed using coupons sold with cigarettes or canister lids sold with smokeless tobacco. This merchandise almost always bears the logo of a tobacco brand, thus diffusing marketing efforts beyond traditional channels. When youth and adults wear or use these materials, they become walking advertisements.

Most adults supported restrictions on use of tobacco brand merchandising by youth. However, youth were less supportive.

We found that most of the adults (70%), 39% of the 10th-graders and 49% of the 8th-graders surveyed in the Independent Evaluation believed that youth should be prohibited from wearing or bringing to school items that have a tobacco company name or picture on them.

More youth than adults owned at least one tobacco brand merchandise item.

The number of adults who participated in these direct mail and brand merchandising promotions roughly reflects the proportion of smokers in California. However, there appears to be a greater appeal for youth.

- About 18% of adults surveyed own at least one or more brand merchandise items.
- Approximately 32% of 8th-, and 33% of 10th-graders reported owning at least one or more items with a tobacco company logo or picture on it.

This high proportion of youth is puzzling, since the order forms prohibit anyone under 21 from ordering the materials. However, young people may order without proof of age, or they may acquire the items from older friends or family. In our survey of in-school youth, when we asked how these students acquired these items, the following methods were reported:

- None…student doesn't own one (64% of 8th-graders, 63% of 10th-graders);
- Handout at a fair or event (5% of 8th-graders, 4% of 10th-graders);
- Gift from friend or family (6% of 8th graders, 8% of 10th graders);
- Received as a prize in a game (3% of 8th graders, 4% of 10th graders);
- From sending in coupons/tobacco package (4% of 8th graders, 8% of 10th graders);
- As part of a tobacco package (2% of 8th graders, 3% of 10th graders);
- Other (4% of 8th graders, 3% of 10th graders).

By combining the percentage of youth who received these items as handouts, from sending in coupons, or as part of a tobacco package, it appears that at least 11% of 8th-graders and 15% of 10th-graders received these items specifically as tobacco promotions.

Most of the brand merchandise catalogs and booklets in stores use themes designed to appeal to young adults and youth, especially to young males.

During 1997, while conducting the survey of billboards in the focal counties, we visited all small convenience stores, liquor stores, and gas station stores in the 54 billboard "stretches" to collect any brand merchandise catalogs they had on display or available upon request from the teller. A total of 244 booklets or catalogs or promotional materials were collected, and coded for content and source. Of these, 98% were collected in retail outlets; 2% were received in the mail or collected at public events.

The majority of these materials represented three campaigns, each with multiple titles. The most prevalent titles were:

- "Marlboro Unlimited" (54%), with titles such as "Marlboro Unlimited Built for Adventure" (Spanish and English), and "Marlboro Unlimited Gear Calendar;"
- "Camel Cash" (31%) with four different titles, such as "Camel Cash Metro Active;"
- "Copenhagen/Skoal Outfitters" (7%).

Although the brands and titles varied, there were two dominant themes found in the 244 booklets:

- Outdoor adventure (61%); and
- Ready to party (31%).

Other themes, such as "independent woman" (3%), offers of free merchandise (2%), and promoting the upscale home (1%) were less commonly observed.

Of the 244 booklets coded, most (86%) contained people-like characters or photographs of real people as follows:

- 36% were cartoon characters (Joe Camel).
- 64% had photographs of real people.

Cartoon and real-people models were featured in solo situations 99% of the time, rather than in groups or large parties. Nearly all (99%) appeared to be under age 30, and 93% were male. Women were portrayed in 5% of the materials, while another 2% contained mixed gender couples or groups. The characters represented suggest these materials had masculine themes, or were aimed at a largely young male audience.

When buyers send away for brand merchandise items, they enter into a direct mail relationship with a tobacco company.

All of the brand merchandise catalogs requested information from the buyer about name, address, age, and gender. Often the order forms sought additional information, such as preferred tobacco brands. All of these forms stated that the buyer must be over 21, and asked the buyer to sign a statement to that effect. No other proof of age was required. Many young people may be constrained by the need to pay for shipping and handling charges. However, 43% of the order forms waived shipping and handling charges. This last feature made it possible for young people to redeem coupons without having credit cards or a checking account to cover the additional costs.

The process of redeeming coupons allows tobacco companies to enter each buyer into a database with the individual's name and address, thereby developing a personal link with each consumer. By developing this sort of relationship with each smoker or potential smoker, the tobacco companies may have developed a form of promotion that can circumvent future restrictions on more traditional forms of tobacco advertising.

National regulations, which would prohibit coupon redemptions through the mail, face an uncertain future. Since age cannot be confirmed by mail, and this merchandise has strong appeal to youth, it needs to be controlled at the policy level.

Implications and Recommendations

It appears that the tobacco industry has some very targeted campaign goals. In some cases, they are appealing to special audiences, such as youth and young adults, African Americans and possibly Latinos. Their methods include traditional forms of advertising as well as newly emerging strategies, such as brand merchandising and sponsorship of large public events. The industry appears to target California more heavily with outdoor advertising than most comparable states. These campaign strategies should be considered in designing anti-tobacco programs and messages.

Educational efforts to deglamorize tobacco use need to continue, especially with youth and young adults.

Entertainment newspapers are targeting young adults with large-scale ads for tobacco-sponsored clubs, bars, and lounges, in ways that make tobacco use seem like a normal and appealing part of evening entertainment, bars, and clubs, and that glamorize both alcohol and tobacco use. We found that pro-tobacco print advertising is most prevalent in weekly entertainment newspapers aimed at young adults. There has been a proliferation of ads for tobacco-sponsored bar and club nights, with one-half to multipage spreads devoted to publicizing the brand-sponsored nights at various venues throughout a city each month. These messages usually suggest a special evening at these sites, often with a fun and festive theme. Bar owners do not necessarily have to discontinue these events when smoking is banned in bars. The contracts with bar owners, and the entertainment provided by tobacco company representatives, such as the interactive games, brand napkins, giveaways, etc., can still continue, even though smoking itself may be restricted.

TCP activities need to alert young adults to this type of effort. The goal of those messages could include denormalizing the combination of music, alcohol, and tobacco. These bar and club nights should also be monitored by local TCP staff to ensure that planned restrictions on smoking are not circumvented on tobacco sponsored nights.

African American and Latino groups should be alerted that their newspapers are being singled out for tobacco advertising, and encourage the publishers to consider alternative revenue sources.

In newspapers with more of a "news" and less of an "entertainment" focus, we found more than seven times as much pro-tobacco advertising in newspapers with a primarily African American audience, and more than three times as much in publications with a primarily Latino audience compared to rates in general-audience newspapers. To their credit, the African American newspapers also have seven times as much anti-tobacco advertising. It is possible that these publications require more advertising of all kinds to survive. However, their readership is being exposed to more pro-tobacco messages as a result.

The ethnic networks and local TCP programs need to contact publications in their area and urge alternative advertising revenues. It may also be helpful to survey the readership of some of the major publications and find out whether they like all the tobacco advertising, then present the results to the publishers. Finally, they should consider a planned campaign of editorials in these or competing publications on the targeting of the readership by tobacco.

Local communities and state activists need to monitor the (January 1998) legislation prohibiting tobacco billboards near schools, and youth need to hear that billboards are located in places that expose them on their way to school and play.

An alarming proportion of billboards near youth facilities are for tobacco advertising. There has been a statewide law enacted, that should ban this occurrence after January 1998, but it should be monitored by local programs to ensure compliance. Teachers should consider implementing homework assignments in which school children investigate routes to school and play, as a way to heighten awareness of pro-tobacco influences that target youth. Collaboration between community tobacco programs and school-based programs should focus on this issue. An alternative strategy for countering the supply side of tobacco advertising is to work with the billboard owners, locally and statewide, to gradually end their pro-tobacco accounts.

In five of the 18 focal counties, there were major restrictions on billboards of all kinds, as part of beautification initiatives in specific municipalities. An alternative or paired strategy would be to implement local policies restricting outdoor advertising of all kinds, for the general improvement of local communities.

Tobacco campaigns that use "health" as a message in billboards and other places present an opportunity for tobacco activists to provide counter advertising in the same format and to insist that health claims be substantiated.

In 1997, we observed a new campaign for Winston that appears to make health claims about the tobacco in their cigarettes. The Federal Trade Commission (FTC) requires all advertisers to be able to substantiate any health claims they make. The new ("No Bull") campaign by Winston, which promotes additive-free tobacco through billboards and local bar and lounge events, may be interpreted as a health claim requiring proof. Winston may alter its campaign to focus more on the newness of this product or on alternative aspects that do not challenge the FTC ruling, or may stick with the claim that the ads are about taste, not health.

Local programs should monitor this campaign and others by the tobacco industry, so they can challenge any health claims through media advocacy and, if appropriate, by alerting the FTC.

Large tobacco-sponsored events and series, with extremely large audiences, would be good sites for anti-tobacco groups to sponsor and publicize smoke-free booths, the DHS "Team O_2" Van, and organized community activities to assist the organizers to "divest." Large sports arenas and raceways with permanent signs would also be good targets for the vans, and for organized efforts to get the signs removed.

Tobacco advertising and sponsorship at events is a very involving and rapidly growing form of promotion. IEG describes many of the reasons the tobacco industry is entering into this form of marketing.[29] First, it provides events organizers with premium fees, since tobacco often has to pay more than other sponsors. Sponsorship builds awareness of a product, associates tobacco with participants' passions, and benefits from a rub-off of the goodwill participants have for the event being sponsored. It also permits tobacco company access to event mailing lists and corporate clients. Promotions at events help distinguish one brand from another by associating the brand with the event, and they provide quality time for promoting the benefits of a product. Support of events, teams, or performers buys corporate goodwill. It is cheaper than buying airtime, yet it gets a lot of airtime, for certain types of events. Car races, for example, may run for hours and continually display tobacco logos. Sponsorship contracts may also allow sales of promotional items like T-shirts which can be used after the event. Finally, as noted earlier, sponsorship permits a level of fun for participants, such as arcade-type Marlboro rides.

We found that tobacco sponsorship and advertising at arenas tended to be focused on events with larger audiences, and on rodeos, sports, and car/boat races. Such sites and events can be identified by local programs by scanning newspapers for upcoming events, calling local stadiums and arenas, and visiting some events. Rodeos are more likely than not to have tobacco sponsorship.

These sites and series have been and should continue to be targeted by TCS and their local programs to assist the owners and organizers to seek alternative forms of revenue. Surveys of participants by local groups may be conducted and used to demonstrate to the decision-makers that their audiences do not like all the tobacco promotional displays, or the exposure for their children. At those events or venues that will not reduce or restrict tobacco monies, counter measures should be enacted, such as tobacco-free booths or "Team O_2" van at or near the events. Finally, tobacco control programs should work with local municipalities to enact ordinances, where they do not exist, restricting tobacco advertising and sponsorships at all events that receive any public support or tax-breaks, such as county fairs and festivals.

Local community and school programs should continue to work on enhancing young people's skills to resist the influences of tobacco brand merchandising and to incorporate messages into their related presentations and curricula about the goals of brand merchandising.

We found that use of tobacco brand merchandise is higher among youth than adults in our surveys. This suggests that these items are more desirable and attractive to youth, and not terribly difficult to get. Coupons can be redeemed without proof of age, by mail. Proposed FDA regulations would restrict mail redemptions, but the future of these regulations is not certain.

Ordinances need to be enacted or (if proposed regulations go into effect) enforced, requiring redemptions only in-person, with proof of age. Tobacco retailers need to be encouraged to remove promotional materials sold with cigarettes, and educated about the appeal of these items to youth. Finally, community and school program staff need to work together to incorporate messages into their media and curricula that educate youth about the goals of tobacco brand merchandising which are: to get their names and addresses for easier access in the future and to turn them into youthful advertisers for the tobacco industry. Such educational efforts should be designed to enhance young people's skills to resist tobacco brand merchandising.

Tobacco advertising continues to play a dominant role in California, through a variety of channels, using strategies that are fluid and responsive to new trends. These strategies should continue to be monitored, to provide data for design of appropriate health promotion programs and tobacco control policies.

CHAPTER 7

Integration of Tobacco Control Efforts

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Integration of Tobacco Control Efforts

Introduction

In prior chapters we described the associations between exposure to TCP activities and intermediary outcome variables. These results, in which each component of the TCP is considered separately, help to answer the question of how program modalities (i.e., community, media, and schools) are working and which ones need to be improved. However, tobacco control programs do not occur in isolation. Many adults and youth were exposed to more than one tobacco control program. If the various tobacco control program modalities deliver consistent messages, they may reinforce and enhance one another. For example, exposure to one tobacco control program may prompt recall of the messages delivered by another program. If this is the case, Californians exposed to multiple TCS program modalities may show even stronger anti-tobacco attitudes and beliefs than do those exposed to only one program.

The objectives of this chapter are to:

1. Explore common themes in the associations between tobacco control program exposure and outcomes;
2. Determine whether Californians exposed to multiple tobacco control program modalities showed even stronger anti-tobacco attitudes and behaviors than did those exposed to one program or to no program modalities;
3. Explore potential future directions for the TCP and determine whether opinion leaders endorse these directions; and
4. Determine whether smoking prevalence and tobacco-related social norm indicators differ between California and other states, and whether smoking prevalence and tobacco-related social norm indicators are changing more rapidly in California than in other states.

The analyses presented in this chapter used data from the adult, youth, and opinion leader surveys, as well as the Monitoring The Future and the Behavioral Risk Factor Surveillance surveys.

Common Themes in the Associations between TCP Exposure and Outcomes

There are many consistencies in the association between program exposure and outcomes in the community, media, and schools. Adults and youth exposed to TCP activities tended to have stronger anti-tobacco attitudes, beliefs, and behaviors, compared with those not exposed.

Environmental tobacco smoke (ETS). Awareness of the dangers of ETS was high among both adults and youth, even among those with low exposure to TCP activities. Approximately 9 of 10 adults and youth were already aware that environmental tobacco smoke has dangerous health effects. Despite the fact that ETS awareness was high overall, it was especially high among respondents with exposure to TCP media activities. Adults who remembered more ETS-related advertisements were more likely to believe that breathing in second-hand smoke has dangerous health effects. Youth who had greater exposure to school tobacco programs and ETS-related advertisements were more likely to believe that ETS causes cancer.

Youth access. Exposure to TCP activities through the three major modalities (community, media, and schools) was associated with a social norm that youth access to tobacco is not acceptable. For example, among 8th-graders, those with more exposure to TUPE school programs had more positive attitudes toward enforcement of tobacco policies that restrict youth access. Adults exposed to either a local community program to stop stores from selling tobacco to youth or media advertisements focusing on youth access were more likely than adults not exposed to the program to support policies that make youth pay fines for buying tobacco. However, exposure to these programs was not associated with stronger beliefs that illegal sales influence youth to start smoking, or with stronger support for requiring store owners to obtain licenses to sell tobacco. Among opinion leaders, associations between exposure to the statewide media campaign and youth access outcomes were especially strong. Opinion leaders exposed to media advertisements focusing on youth access were more likely to support policies that make youth pay fines for buying tobacco, support licensing store owners to sell tobacco, and believe that access to tobacco influences youth to start smoking.

Countering pro-tobacco influences. Exposure to the TCP was associated with social norms relevant to countering pro-tobacco influences. Youth with more exposure to TUPE programs had more negative attitudes toward the tobacco industry. This suggests that the TUPE programs may have increased students' awareness of the ways that the tobacco industry encourages tobacco use among youth.

Youth who were exposed to the local community program, "Operation Storefront: Youth Against Tobacco Advertising and Promotion" believed that tobacco advertising makes young people want to start smoking and that tobacco advertising in their community was a serious problem. However, exposure to this program was not associated with adults' beliefs that tobacco advertising and promotions influence youth to start smoking.

Exposure to the general audience media campaign also was associated with beliefs regarding pro-tobacco influences. Adults who remembered more countering-focused advertisements were more likely to believe that tobacco advertising and promotions influence youth to smoke. Youth who had seen more ads expressed more negative attitudes toward the tobacco industry, including the belief that tobacco advertising is a serious problem, the belief that tobacco companies try to get young people to start smoking by using advertisements that are attractive to young people, the belief that tobacco companies try to get people addicted to smoking, and the belief that tobacco companies would not stop selling cigarettes, even if they knew for sure that smoking is harmful.

The Independent Evaluation results suggest that adults and youth exposed to TCP community, media, and school activities were more aware of the potential influences of the tobacco industry on tobacco use. This added awareness may have made them more likely to hold negative attitudes toward the tobacco industry and its tactics.

Another interpretation of this finding is that adults and youth who already hold negative opinions about the tobacco industry may be more likely to pay attention to TCP messages that are consistent with their beliefs. Thus, TCP activities designed to counter pro-tobacco influences may serve two purposes: they may educate people about pro-tobacco influences, and they may reinforce the opinions of people who are already aware of pro-tobacco influences.

The TCP has been successful in increasing awareness of and reducing exposure to ETS. Therefore, TCS may want to consider shifting relative emphasis from ETS to other priority areas such as youth access to tobacco.

The Independent Evaluation shows that efforts to increase awareness of, and reduce exposure to, ETS have largely been successful. Nearly all adults, youth, and opinion leaders were aware of the dangers of ETS, and high compliance with AB13 has ensured that most indoor public areas are smoke-free. Given the large problem of youth access to tobacco, it may be desirable to increase the relative proportion of TCS-funded activities devoted to the youth access priority area, and decrease the relative proportion devoted to ETS. Ongoing activities in the ETS area should focus on a few salient efforts (e.g., bar ban; home and car no-smoking policies) and in geographical areas where more change is needed (e.g., rural areas).

Other tobacco-related social norm indicators and mediators.

Among youth, exposure to TUPE school programs was associated with other tobacco-related knowledge, attitudes, and beliefs not directly related to the three TCS priority areas.

Exposure to TUPE programs seems to have increased tobacco-related knowledge and beliefs about the negative consequences of tobacco use. This is important because increased attention to the negative consequences of smoking is a known mediator of prevention program effectiveness. Among 5th-graders and 8th-graders, those with more exposure to TUPE programs had more negative beliefs about the consequences of tobacco use and greater tobacco-related knowledge. However, when 10th-graders in TUPE grantee schools were compared with 10th-graders in non-grantee schools, there were no differences in tobacco-related beliefs. This suggests that the tobacco use prevention strategies used by high schools that received competitive grants may not be effective in influencing older students' tobacco-related attitudes and beliefs.

In general, tobacco control programs are performing equally well in all 18 focal counties. The differences between people exposed and not exposed to TCP activities were greater than the differences among counties in our sample.

As described earlier in this report, the 18 focal counties varied widely in the amount of per capita funding they received to implement tobacco control programs. Consequently, the 18 focal counties also varied in the percent of residents who reported exposure to tobacco control programs; counties with higher per capita funding were more successful in reaching large segments of their populations. However, when the people exposed to tobacco control programs were compared with the people not exposed to tobacco control programs, the results of the comparisons were generally similar across the 18 focal counties. Although the TCP reached a larger proportion of residents in some counties, the people within each county who were exposed to the TCP appeared to benefit from tobacco control programs equally across counties.

Anti-smoking policies have been widely implemented in workplaces, schools, and restaurants. However, awareness and enforcement of these policies needs to be improved.

No-smoking policies exist in many workplaces, schools, and public areas. However, for these policies to be effective, the public must be made aware of the policies, and they must be enforced effectively. An important goal of the TCP is to increase awareness and enforcement of anti-tobacco policies.

Policies designed to reduce exposure to ETS (no-smoking policies). Certain TCP activities were associated with higher public awareness of anti-smoking policies. Awareness of worksite no-smoking policies was high overall, but it was especially high among adults who were exposed to more ETS advertisements. Awareness of restaurant anti-smoking policies, in contrast, was not so high. Although current policies ban smoking in most restaurants, the majority of respondents believed that there is only a partial ban on smoking in restaurants. Fortunately, it appears that TCP activities are increasing public awareness of restaurant anti-smoking policies; exposure to AB13 community enforcement programs and recall of ETS advertisements were both associated with greater awareness of restaurant no-smoking policies.

Policy enactment and awareness in schools was high. Nearly all of the school districts in California have adopted no-use tobacco policies, and the majority of the students in these schools were aware of the policies. However, policy enforcement appears to be lacking; high school students reported that many student smokers break the no-smoking policies. Furthermore, most high school teachers were unaware that these policy infractions are occurring. This indicates a need for more effective enforcement of school anti-smoking policies.

The proportion of California adults who reported that they do not allow smoking in their homes appears to be at an all-time high. The majority of respondents also indicated that they do not allow smoking in their cars. Adults and opinion leaders who were exposed to ETS-focused advertisements were more likely to have no-smoking policies in their homes.

TCP activities appear to have had success in making the public aware of policies limiting youth access to tobacco. However, public awareness of these policies remains low compared to public awareness of ETS policies. Greater public awareness of youth access-related policies could lead to more effective formal and informal enforcement of policies, leading to decreased access to tobacco among youth.

Policies designed to restrict youth access. In contrast to the high levels of awareness of ETS policies, fewer than half of California adults and youth were aware of community programs and activities designed to increase compliance with youth access laws. However, adults who reported exposure to local community tobacco control programs of all types were more likely than adults not exposed to programs to believe that police "stings" were conducted in their community and to report seeing signs and advertisements telling people to call 1-800-5-ASK-4-ID to report someone selling cigarettes to youth.

Similarly, adults, opinion leaders, and youth who remembered more youth access general audience advertisements were more likely to believe that police "stings" were conducted in their community and report seeing signs and advertisements telling people to call 1-800-5-ASK-4-ID. Youth who were exposed to the mass media campaign were more likely to think youth access to tobacco is a serious problem in their community and know the minimum age required to purchase tobacco products**.**

Independent Evaluation findings suggest that community programs and the media campaign have been successful in convincing youth that tobacco advertising should not be accessible to youth.

Policies designed to counter or limit pro-tobacco influences. Youth who were exposed to either Operation Storefront or countering-focused media advertisements were more likely to believe that tobacco advertising should not be allowed in places where youth will see it. Adults' exposure to Operation Storefront, however, was not associated with their attitudes about advertising restrictions.

Formal enforcement of no-smoking policies was low, but nearly half of the adults and youth surveyed had engaged in personal enforcement efforts.

Tobacco-related policies can be enforced in two ways: enforcement agencies can enforce the policies formally, by imposing penalties or fines, or individual citizens can enforce policies informally, by asking others not to smoke or reporting policy infractions to law enforcement agencies. The Independent Evaluation results suggest that formal enforcement of anti-smoking policies was low. Although most designated AB13 enforcement agency staff responded to inquiries and complaints, few issued citations or fines. However, in the absence of formal enforcement, California adults and youth appeared to be willing to enforce no-smoking policies personally. Nearly one-half of adults and youth surveyed reported they asked someone not to smoke around them during the previous year. Adults and youth were especially likely to engage in personal enforcement efforts if they had been exposed to community tobacco control programs that focused on AB13 or to ETS-focused advertisements. This suggests that even if enforcement agencies do not have sufficient resources to enforce anti-smoking policies adequately, informed citizens can increase the effectiveness of policy enforcement by engaging in personal enforcement. However, an even more effective strategy may be for informed citizens to put pressure on law enforcement agencies to enforce anti-tobacco policies formally and effectively.

Although adults believed that current policies to reduce youth access and restrict youth smoking are adequately enforced, youth reported that this is not the case.

Adults, opinion leaders, and enforcement agency staff tended to believe that policies designed to prevent youth access to tobacco are being enforced adequately. However, most youth reported easy access to cigarettes, and youth who attempted to purchase cigarettes were generally not asked for proof of age. This suggests a need for greater awareness of the ways in which youth gain access to tobacco and use it without being caught.

Adults exposed to community programs were more likely to believe that enforcement of youth access policies is adequate.

Adults were more likely to believe that current levels of enforcement of youth access policies are adequate if they had been exposed to a local community program to stop stores from selling tobacco to youth. However, exposure to media programs was not associated with beliefs that current levels of enforcement are adequate.

These results suggest that adults and opinion leaders need to be educated about the need for enforcement of tobacco-related policies designed to limit youth access to tobacco. Tobacco control programs designed to educate the public about policies and enforcement activities may be giving the public a false sense of security—adults and opinion leaders may assume that these programs are more effective than they are. If adults and opinion leaders are warned that enforcement is still relatively low despite these efforts, they may increase their support of efforts to strengthen enforcement in their communities.

Local policies appear to have been somewhat effective in reducing exposure to ETS, limiting youth access to tobacco, and countering pro-tobacco influences. However, there is considerable room for improvement. Many adults and youth are still exposed to ETS, many youth still report easy access to tobacco, and many pro-tobacco influences still reach youthful audiences. Perhaps more stringent policies are needed to achieve the goals of the TCP. In the absence of more stringent national or state-level policies, communities should be encouraged to enact local policies to limit ETS exposure, youth access to tobacco, and pro-tobacco influences.

Combined Associations Between TCP Activity Exposure and Outcome Variables

The results above describe common themes in the associations between TCP activity exposure and tobacco-related outcomes. The following section will explore the differences in tobacco-related attitudes and behaviors among those Californians exposed to one type of TCP activity, those exposed to more than one TCP activity, and those not exposed to any TCP activities.

For simplicity, this chapter defines exposure to TCP activities in the following ways:

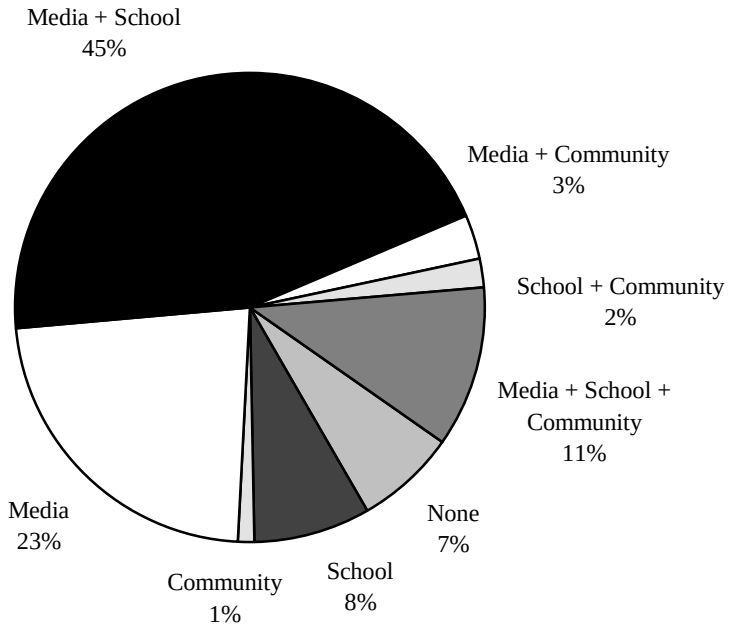
Community:	recall of at least one local community program
Media:	validated recall of at least one TCP media ad
Schools:	recall of at least one CDE-funded lesson or schoolwide activity

A more detailed analysis of varying levels of exposure within each category can be found in previous chapters.

Ninety-three percent of California 10th-grade youth were exposed to at least one modality of the California Tobacco Control Program.

Most California youth reported exposure to more than one TCP modality. For example, a young person who had attended a community program also may have seen one or more ads from the mass media campaign. Figure 34 shows the percent of youth who were exposed to different combinations of tobacco control program modalities. Only 7% of youth were not exposed to any TCP activities.

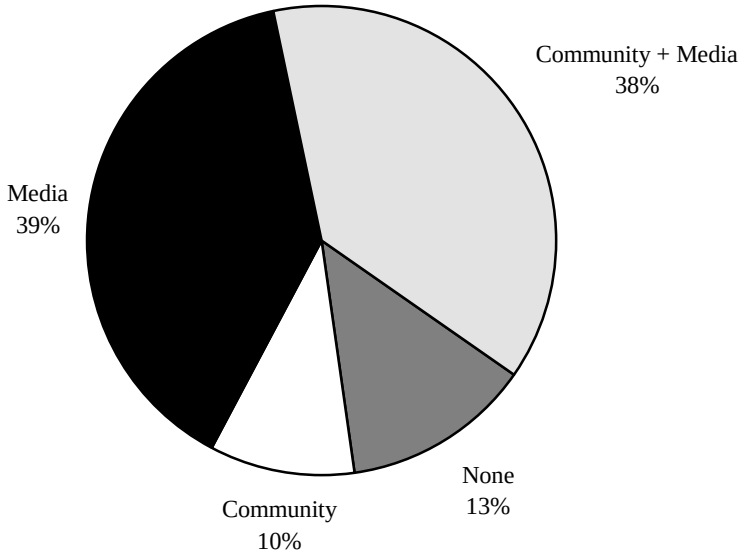
FIGURE 34
Percent of Youth Exposed to Different Combinations of TCP Programs



Eighty-seven percent of California adults were exposed to at least one TCS program.

Figure 35 shows the percent of adults who were exposed to TCS community and media programs. Over one-third (38%) were exposed to both community and media programs, while 13% were not exposed to either type of program.

FIGURE 35
Percent of Adults Exposed to Different Combinations of TCS-funded Programs



Exposure to each Tobacco Control Program component was associated with tobacco-related knowledge, attitudes, and beliefs, even after accounting for the respondents' exposure to other TCP components

Because most Californians were exposed to more than one type of tobacco control program, it is not immediately clear which program(s) were responsible for the observed differences in anti-tobacco attitudes and behaviors between those who were exposed and those who were not exposed. Therefore, we evaluated the associations between TCP exposure and tobacco-related outcome variables, while controlling for the respondents' level of exposure to other TCP modalities. These results evaluate how strongly each TCP component (i.e., community programs, media campaign, and school-based programs) would have been associated with outcomes, *if everyone had received an equal level of exposure to the other program modalities.*

Among adults, exposure to community programs was associated with anti-tobacco attitudes and behaviors.

Adults who reported high levels of exposure to TCS community programs were more likely to practice personal enforcement and talk about not smoking. These associations were present regardless of adults' exposure to media programs.

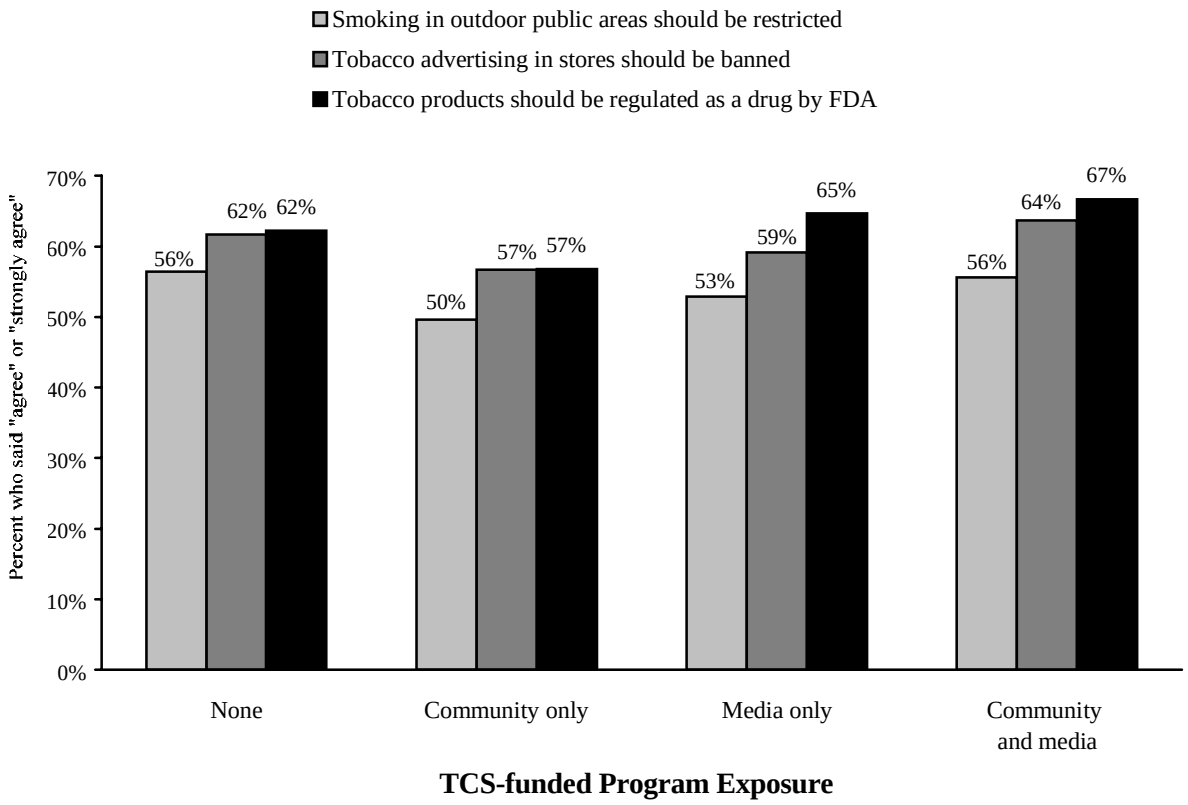
Among adults, exposure to media programs was associated with anti-tobacco attitudes and behaviors.

Adults who reported high levels of exposure to media programs were more likely to dislike environmental tobacco smoke, favor government regulation of tobacco, practice personal enforcement, talk about not smoking, and express greater beliefs in the importance of tobacco issues. These associations were present regardless of the adults' exposure to TCP community programs.

Adults who were exposed to both media and community programs tended to support anti-tobacco policies more than did adults who were exposed only to media programs or only to community programs.

Media programs and community programs had important individual associations with support for anti-tobacco policies, but the interaction (or combination) of the two may have been especially powerful. The Independent Evaluation data indicate that each type of program reinforced or increased the relationship between the other type of program and policy attitudes. In other words, exposure to both community and media programs was associated with policy attitudes separately, and *in addition,* the combination of high community exposure and high media exposure was associated with even higher policy attitudes (Figure 36). The attitudes shown in Figure 36 are those that were significant at $p<.01$.

FIGURE 36
Percent of Adults Who Supported Anti-Tobacco Policies, according to TCS-funded Program Exposure



Interestingly, adults who did not report exposure to any of the TCP components were slightly more likely to support anti-tobacco policies than were adults who reported exposure only to community programs or only to media programs. However, this difference was not statistically significant, so it appears to be an artifact of normal sampling variation.

Among youth, exposure to school programs was associated with anti-tobacco attitudes and behaviors.

The following characteristics distinguished 10th-graders with high school-based tobacco program exposure from their peers who reported lower school program exposure, regardless of their level of exposure to other TCP activities:

- Higher belief in the importance of tobacco-related issues (i.e., believing that ETS exposure, youth access, and pro-tobacco influences are serious problems)
- Higher rates of advocacy actions (such as signing petitions, contacting government officials, and attending youth conferences)
- More likely to talk to others about tobacco use
- More negative attitudes toward the tobacco industry
- More positive attitudes toward anti-tobacco policy enforcement
- More negative perceived consequences of tobacco use

Among youth, TCP community programs appear to have had some positive associations and some negative associations with anti-tobacco attitudes and behaviors, after exposure to school and media programs was taken into account.

Tenth-grade youth with high community program exposure showed the following characteristics relative to those with lower exposure to community programs:

- Higher belief in the importance of tobacco-related issues (i.e., believing that ETS exposure, youth access, and pro-tobacco influences are serious problems)
- Higher rates of advocacy actions (such as signing petitions, contacting government officials, and attending youth conferences)
- More likely to talk to others about tobacco use

However, 10th-grade youth with high community program exposure also showed the following negative characteristics relative to their peers with lower community program exposure:

- Fewer perceived negative consequences of use
- Lower cigarette refusal self-efficacy
- Higher perceived cigarette prevalence
- More exposure to ETS in the home or car.

These results suggest that youth who were exposed to community programs were more aware of tobacco-related issues and policies. It is possible that their greater awareness of tobacco-related issues caused them to overestimate the prevalence and acceptability of smoking. Their higher expectations of smoking prevalence and norms may have made them more susceptible to experimentation with tobacco. More likely is the possibility that youth who smoked were attracted disproportionately to community events and activities, accounting for many of the negative associations. In that light, higher rates of smoking among those exposed to community programs would indicate successful program targeting. However, this also may indicate that some community programs have had the unintended consequence of bringing groups of youth smokers together, thus giving the impression that smoking is more prevalent and acceptable among youth than it actually is.

Exposure to TCP media programs was associated with stronger anti-tobacco attitudes and behaviors among youth.

The following positive characteristics distinguished 10th-grade youth with high media exposure from their peers with low media exposure:

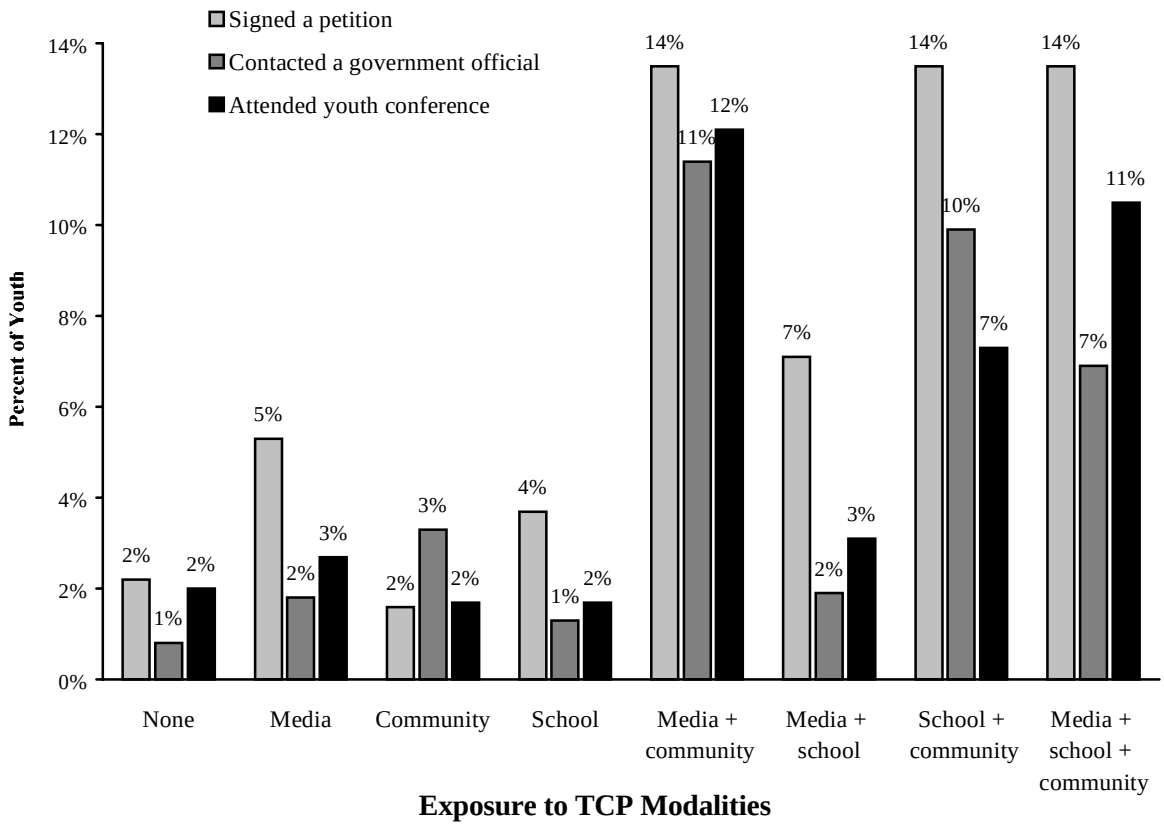
- More negative attitudes toward the tobacco industry
- More perceived negative consequences of use
- Higher cigarette refusal self-efficacy.

Youth exposed to multiple tobacco control program modalities were more likely to perform advocacy actions than were youth exposed to only one modality or youth not exposed to tobacco control programs.

Figure 37 shows the percent of 10th-grade youth who participated in advocacy actions, such as signing petitions, contacting government officials, and attending youth conferences. Youth who reported exposure to more than one type of tobacco control program were more likely to have performed these advocacy actions than were youth exposed to one program or no programs.

Of course, it also is possible that youth became aware of tobacco control programs *through* their participation in advocacy actions. Youth who attend conferences about tobacco, communicate with government officials about tobacco, or speak with people who circulate anti-tobacco petitions may learn about specific tobacco control programs through their participation in these activities.

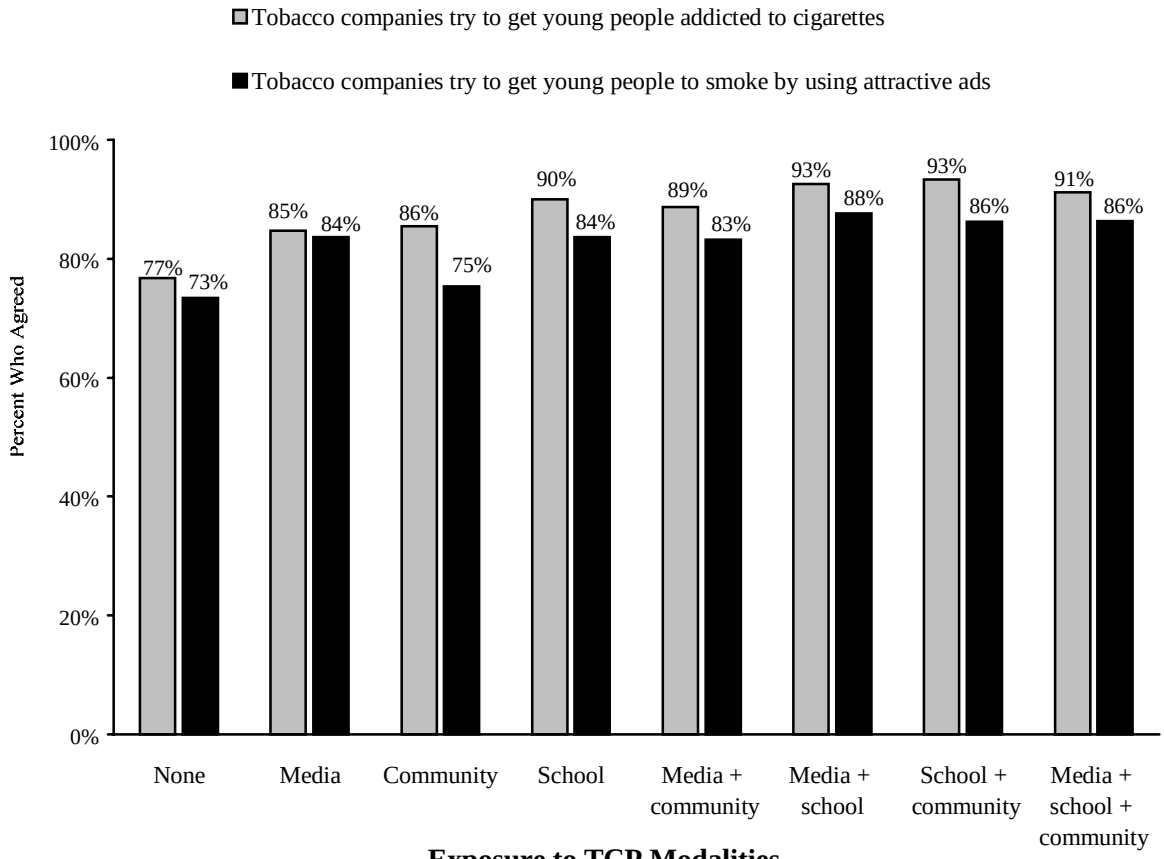
FIGURE 37
Advocacy Actions among Youth, According to TCP Exposure



Youth exposed to multiple tobacco control program modalities expressed more negative attitudes toward the tobacco industry than did youth exposed to only one modality or youth not exposed to tobacco control programs.

Figure 38 shows the percent of 10th-grade youth who expressed negative attitudes toward the tobacco industry, according to their exposure to TCS program modalities. Youth exposed to more than one program expressed attitudes toward the tobacco industry that were significantly more negative than those of youth exposed to only one program or youth not exposed to any programs.

FIGURE 38
Negative Attitudes toward the Tobacco Industry among Youth, According to TCP Exposure



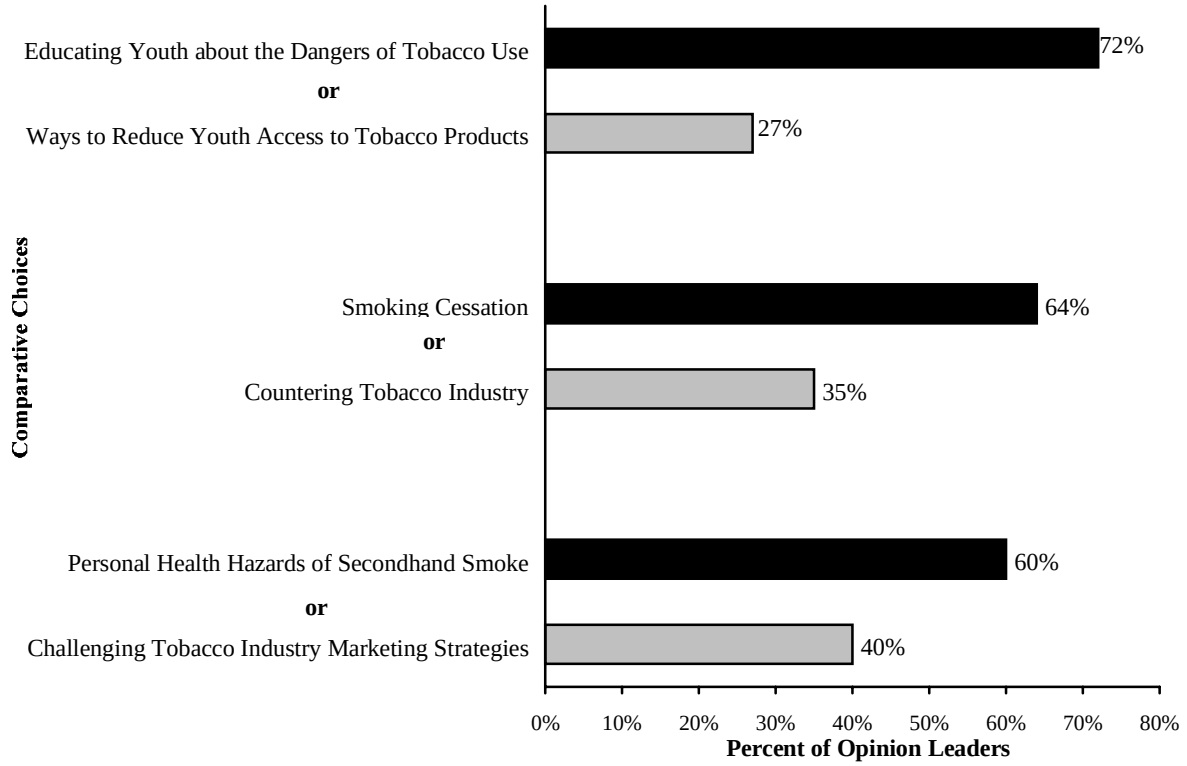
Setting Priorities for Future California TCP Activities

We asked opinion leaders about their support for differing future directions of the statewide TCP ("In the future, do you think that the statewide tobacco control program should focus more on 'X' or 'Y'?"). Results are displayed in Figure 39.

Overall, opinion leaders were substantially more supportive of individual behavior change strategies compared with community-level strategies for setting the future program objectives.

The majority of opinion leaders favored individual behavior change strategies, such as educating youth about the dangers of tobacco use (72%), educating people about the hazards of ETS (60%), and increasing smoking cessation (64%). Relatively few opinion leaders favored community-level strategies, such as reducing youth access (27%), countering the tobacco industry (35%), and challenging tobacco industry marketing practices (40%).

FIGURE 39
Opinion Leader Responses to "What should TCS focus on in the future..."
Focal Evaluation Counties
(1996)



These findings suggest that efforts should be initiated among TCS-funded community programs and the mass media campaign to educate community opinion leaders about the importance of the TCS priority tobacco control strategies. Opinion leaders may be more likely to support local efforts when they understand the rationale for the statewide emphasis for a community-oriented, environmental tobacco control approach.

Smoking and Tobacco-Related Social Norm Indicators in California and Other States

The Independent Evaluation was designed primarily to assess associations between exposure to tobacco control programs and outcome variables within California. However, it is also informative to compare California smoking data with data from other states. Such a comparison can answer two important questions:

1. Do smoking prevalence and tobacco-related social norm indicators differ between California and other states?
2. Are smoking prevalence and tobacco-related social norm indicators changing more rapidly in California than in other states?

National datasets such as Monitoring The Future and the Behavioral Risk Factor Surveillance Survey can be used to compare California and other states on smoking-related variables. These national datasets use the same survey methodology and the same questions across states, so between-state comparisons can be made.

To examine the differences in smoking-related variables between California youth and youth from other states, we used data from the 1991-1996 Monitoring The Future surveys.

To assess smoking prevalence, youth in the 8th- and 10th-grades were asked the following question:

- How frequently have you smoked cigarettes during the past 30 days?

We used two indicators of social norms—disapproval of smoking and estimates of friends' smoking. These constructs indicate the extent to which youth believe that smoking is a socially acceptable, normative activity. Youth in the 8th- and 10th-grades were asked the following two questions:

- Do you disapprove of people smoking one or more packs of cigarettes per day?
- How many of your friends would you estimate smoke cigarettes?

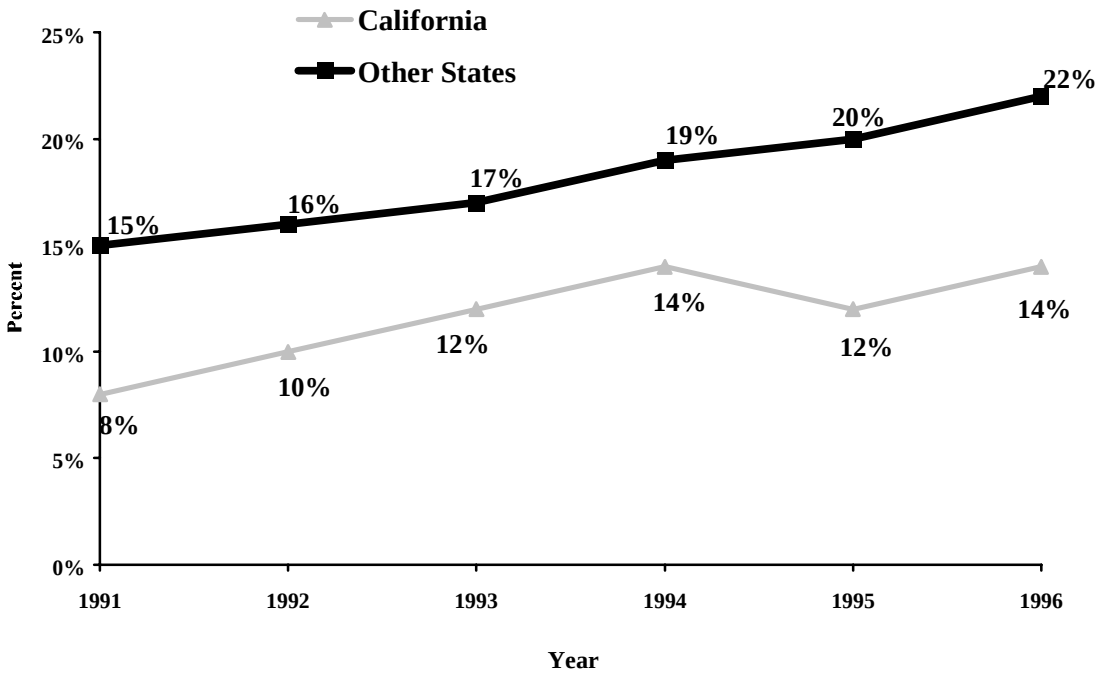
Percentages were examined for California youth and youth from the other 49 states.

Smoking Among Youth in California and Other States

The prevalence of youth smoking is lower in California than in other states.

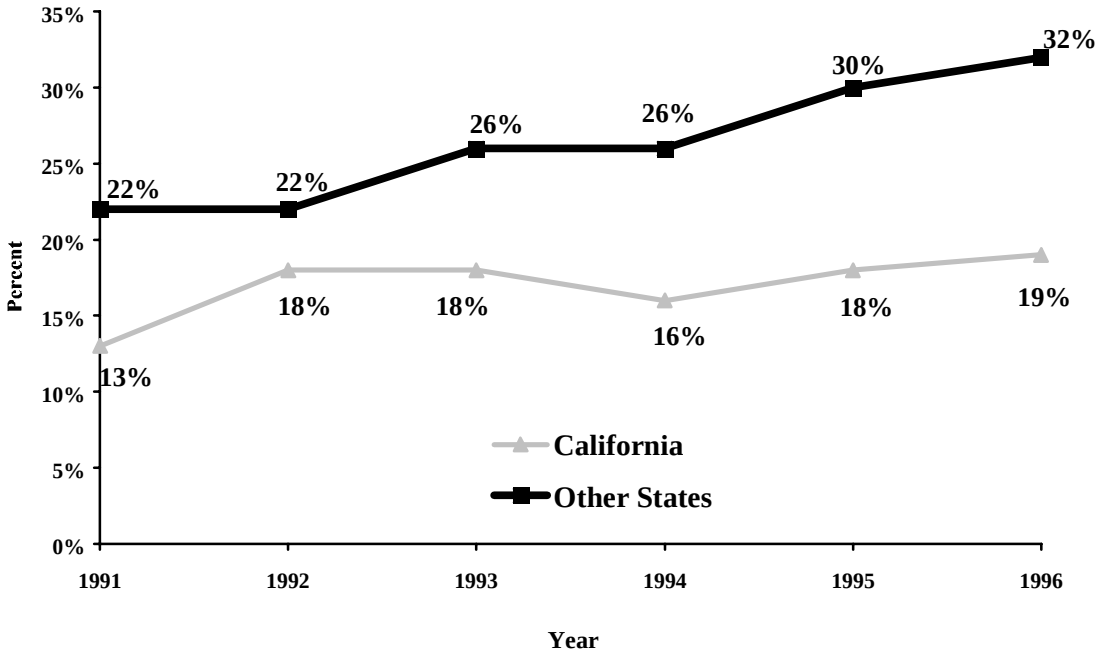
As shown in Figures 40 and 41, smoking prevalence was consistently higher in other states than in California. The average difference between California and other states over the five-year period was 6.5 percentage points for 8th-graders and 9.1 percentage points for 10th-graders.

FIGURE 40
Percent of 8th-Grade Youth Who Smoked During the Past 30 Days



Source: Monitoring the Future Survey, 1991-1996

FIGURE 41
Percent of 10th-Grade Youth Who Smoked During the Past 30 Days



Source: Monitoring the Future Survey, 1991-1996

Although youth smoking is increasing both in California and in other states, it is increasing more rapidly in other states.

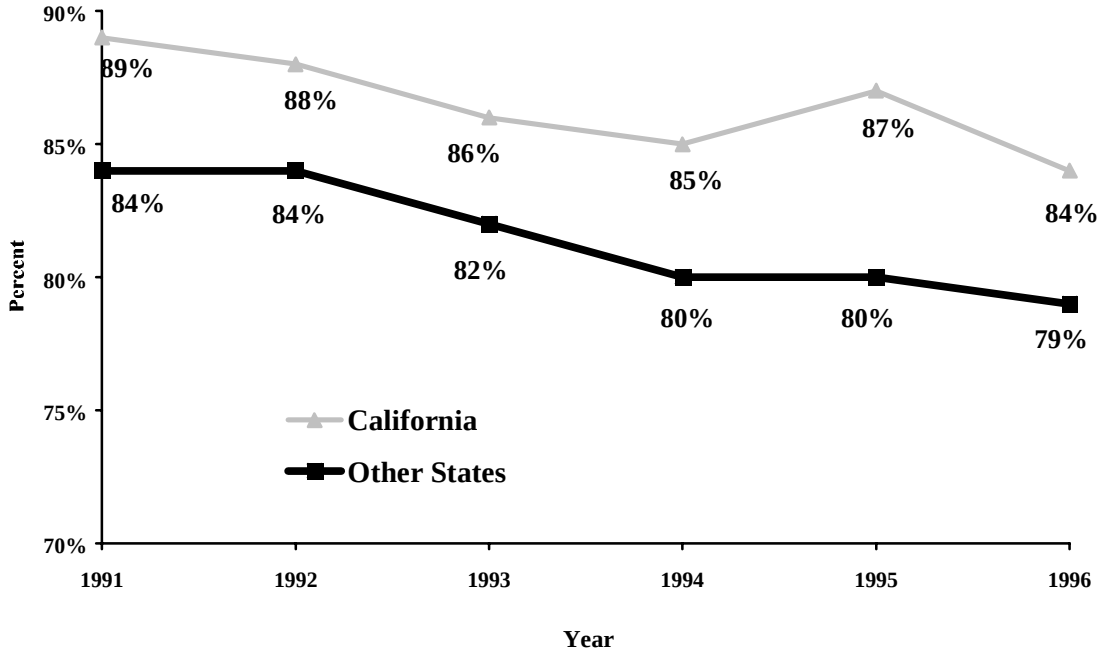
The percent of California youth who smoked in the past 30 days increased from 1991 to 1996, but the increase in California was less dramatic than the increase in other states. Among 8th-grade youth, smoking prevalence increased by 5.6 percentage points in California from 1991 to 1996, as compared with 6.8 percentage points in other states. Among 10th-grade youth, smoking prevalence increased by 6.7 percentage points in California from 1991 to 1996, as compared with 10.2 percentage points in other states. In short, fewer youth smoke in California than in other states, and despite increases nationwide, the gap between California and the rest of the United States appears to be widening.

Social Norm Indicators Among Youth in California and Other States

California youth are more likely to disapprove of smoking than are youth in other states.

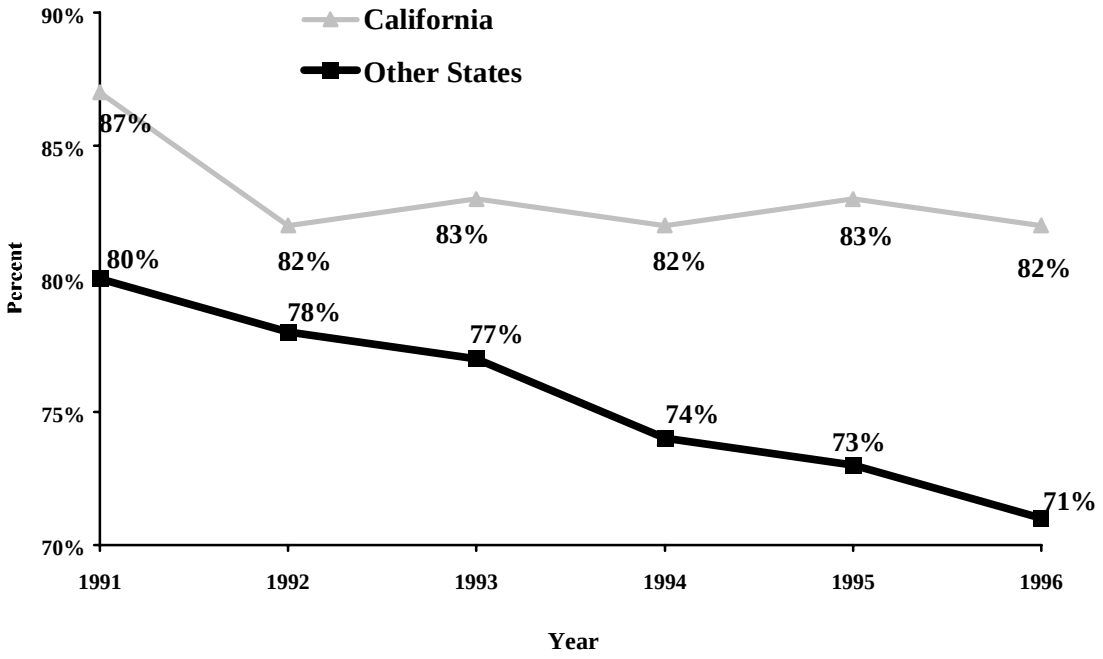
Figures 42 and 43 show the percent of youth in California and other states who disapproved of people smoking one or more packs of cigarettes per day. California youth consistently showed higher rates of disapproval than did youth in other states. Over the 5-year period from 1991 to 1996, the average difference in disapproval rates between California and other states was 5.0 percentage points for 8th-grade youth and 7.7 percentage points for 10th-grade youth.

FIGURE 42
Percent of 8th-Grade Youth Who Disapproved of Smoking



Source: Monitoring the Future Survey, 1991-1996

FIGURE 43
Percent of 10th-Grade Youth Who Disapproved of Smoking



Source: Monitoring the Future Survey, 1991-1996

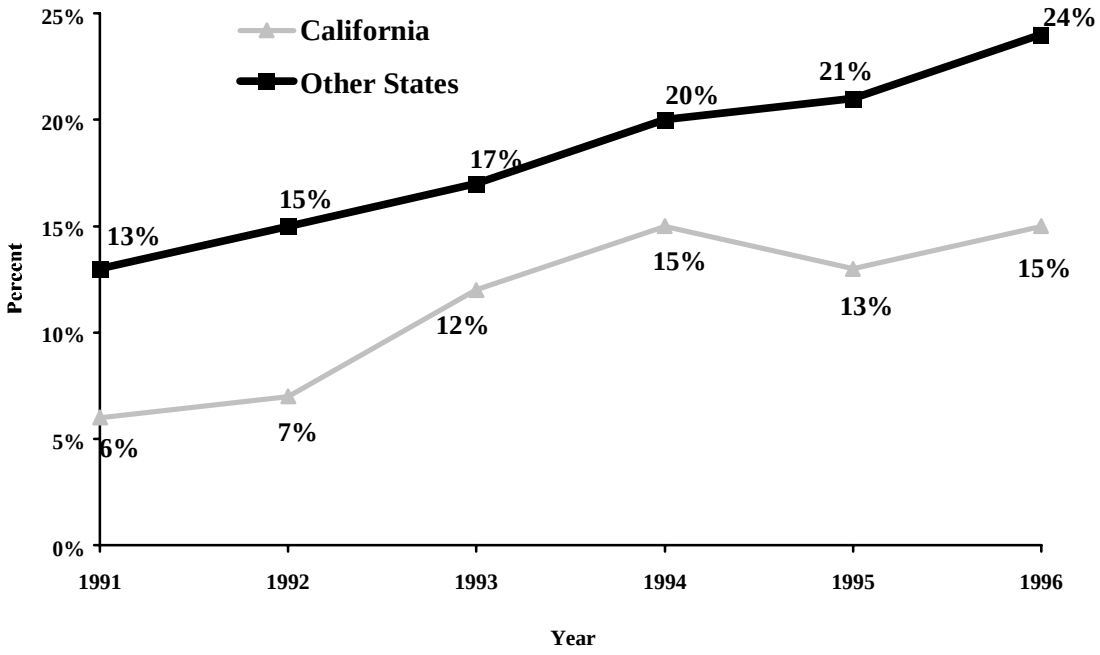
Disapproval of smoking appears to be decreasing both in California and in other states. However, this change is occurring more slowly in California.

As shown in Figures 42 and 43, the percentage of youth who disapprove of smoking has decreased both in California and in other states, indicating that smoking is becoming more acceptable among youth. In California, 86% of youth disapproved of smoking in 1991, but only 81% disapproved of smoking in 1996. In other states, 78% of youth disapproved of smoking in 1991, but only 72% disapproved of smoking in 1996. Again, the difference between California and the rest of the United States appears to be widening. While the difference in disapproval of smoking between California and the rest of the United States was 7.8 percentage points in 1991, it increased to 9.1 percentage points in 1996. This indicates that although smoking is becoming more acceptable among youth both in California and in other states, the acceptability of smoking is increasing more rapidly in other states than in California.

California youth are less likely to report that most or all of their friends are smokers than are youth in other states.

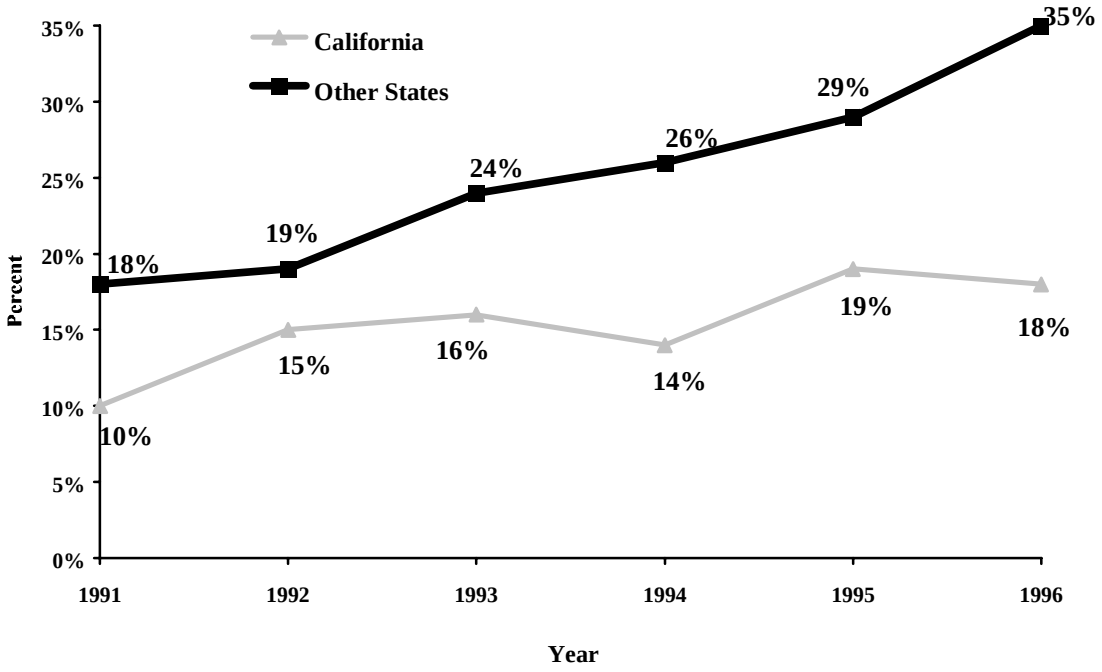
As shown in Figures 44 and 45, the percentage of youth who report that most or all of their friends are smokers has been consistently lower in California than in other states from 1991 to 1996. Over the 5-year period, the average difference between California and other states was 6.9 percentage points for 8th-grade youth and 9.7 percentage points for 10th-grade youth.

FIGURE 44
Percent of 8th-Grade Youth Who Stated That Most or All Of Their Friends Smoke



Source: Monitoring the Future Survey, 1991-1996

FIGURE 45
Percent of 10th-Grade Youth Who Stated That Most or All Of Their Friends Smoke



Source: Monitoring the Future Survey, 1991-1996

Perceptions of friends' smoking are increasing both in California and in other states.

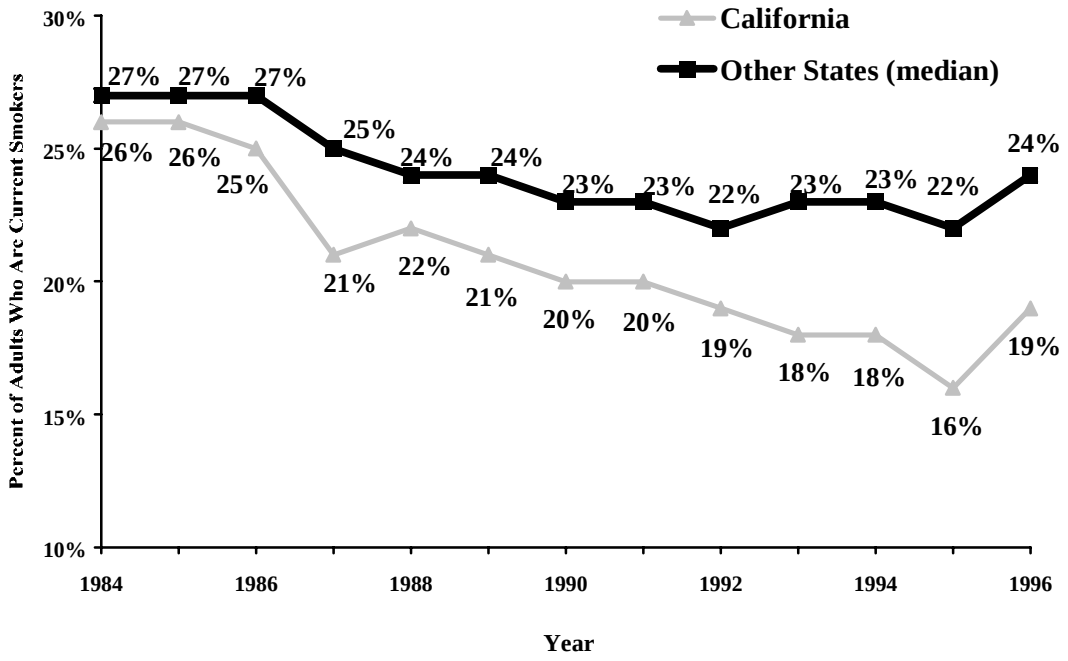
California youth's perceptions of their friends' smoking increased from 1991 to 1996 (Figures 44 and 45). The percentage of California youth who believed that most or all of their friends smoked increased from 8% in 1991 to 17% in 1996. A similar trend was observed in other states. In 1991, 9% of youth in other states perceived that most or all of their friends smoked, and this number increased to 29% in 1996. The difference between California and other states is widening. In 1991, the difference between California and other states in the percent of youth who believed that most or all of their friends smoked was only 1.3 percentage points. By 1996, this difference increased to 12.2 percentage points. This suggests that although perceptions of friends' smoking are increasing in California, they are increasing much more quickly in other states.

Smoking Among Adults in California and Other States

Adult smoking prevalence is lower in California than in other states, and it is declining more rapidly.

We used data from the Behavioral Risk Factor Surveillance Survey (BRFS) to examine trends in smoking prevalence among adults in California and other states. BRFS data from 1984 to 1996 were available. As shown in Figure 46, adult smoking prevalence has been consistently lower in California than in other states since 1984. In addition, the rate of decline in smoking from 1984 to 1996 was steeper in California than in other states. This suggests that the gap in smoking prevalence between California and other states has been widening and may continue to widen in the future.

FIGURE 46
Smoking Prevalence Among Adults



Source: BRFS

Implications and Recommendations

Tobacco Control Programs are reaching Californians through multiple channels.

Presenting information through a variety of channels is an important strategy for effective dissemination of information. The Independent Evaluation suggests that the three modalities of TCP programming (community, media, and school) have each been effective in increasing awareness of tobacco-related issues among California youth and adults. To reach the broadest audience possible, TCS should continue to deliver programs through multiple channels.

The messages conveyed by one component of the TCP appear to enhance or reinforce the messages conveyed by other components of the TCP. Therefore, it is recommended that all three tobacco control modalities be continued and, where needed, strengthened.

Although exposure to specific tobacco control programs was associated with tobacco-related attitudes and behaviors, people exposed to multiple tobacco control programs showed especially high levels of anti-tobacco attitudes and behavior. This suggests that TCP community, media, and school programs may enhance the effects of one another. Efforts to expose all Californians to multiple TCP modalities should continue.

Tobacco Control Programs appear to work in similar ways in different California counties.

Although counties differ in their demographic composition, smoking prevalence, and other important characteristics, the tobacco control programs described in this report appear to have worked equally well across counties and strata. This suggests that the strategies adopted by TCS can be applied in different settings. However, because small rural counties have higher levels of tobacco use and greater acceptance of tobacco use, stronger interventions may be necessary to bring the anti-tobacco social norms in these counties to a level similar to that of the larger, more urban counties. TCS should focus on increasing anti-tobacco social norms in these small rural counties.

Tobacco Control Programs appear to have increased awareness of existing youth access policies and increased support for new policies. However, future efforts should focus on more effective enforcement of these policies.

Exposure to TCP community, school, and media programs was associated with greater awareness of policies designed to limit youth access to tobacco. However, this greater awareness of policy may lead some Californians to believe that the existing policies are actually effective in preventing youth access to tobacco, when in reality most youth are able to obtain cigarettes quite easily. TCS should educate adults and opinion leaders that the current level of policy enforcement is not sufficient to prevent youth access. This may encourage adults and opinion leaders to increase their own personal enforcement efforts or to become more involved in community-level enforcement, thus reducing youth access to tobacco.

TCS should educate opinion leaders about community-level social norm change.

Despite the current TCS focus on community-level social norm change, many opinion leaders are still focusing on individual-level knowledge and attitude change strategies. TCS needs to educate opinion leaders about the potential effectiveness of strategies related to the three priority areas (limiting youth access, countering pro-tobacco influences, and reducing ETS). If opinion leaders understand the rationale behind these strategies, they may be more likely to support and participate in TCS programs.

The California Tobacco Control Program may have prevented some of the increase in youth smoking observed in other states.

From 1991 to 1996, the United States experienced an increase in youth smoking and acceptability of smoking. Compared to youth in other states, California youth showed less dramatic increases in smoking prevalence, approval of smoking, and estimates of smoking among friends. Although these data cannot identify the cause of the differences between California and other states, the California Tobacco Control Program may have played a key role in preventing the increase in youth smoking that occurred in other states.

The California Tobacco Control Program may have been responsible for the sharp decline in smoking among California adults.

Adult smoking prevalence is decreasing more rapidly in California than in other states. Although this does not prove that the California Tobacco Control Program is responsible for the recent decline in smoking among California adults, the widening gap between California and other states since the passage of Proposition 99 suggests that the Tobacco Control Program may have encouraged many California adults to quit smoking.

Continued tobacco control efforts are needed to reverse the trend of increasing youth smoking.

Although the increase in youth smoking has not been as dramatic in California as in other states, any increase in youth smoking is alarming. It is important to continue to develop new and innovative strategies for tobacco control among youth. Intensive efforts may be necessary to counter the multiple influences that encourage youth to smoke.

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